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ABSTRACT

This annotated bibliography provides a recommended list of research and theoretical literature in the field of secondary education. It organizes the literature into three main topics: (1) references of general interest; (2) reform strategies designed to promote academic achievement; and (3) literature relevant to the specific research projects conducted at the National Center on Effective Secondary Schools. A new category, Student Engagement, has been developed and is entered as a subtopic under the Organizational Remedies section of the second main topic. The bibliography contains over 500 citations selected upon consultation with researchers at the National Center on Effective Secondary Schools and other universities and educational research institutions. Each citation also includes an ERIC access number, if available. (LMI)

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NATIONAL CENTER ON EFFECTIVE SECONDARY SCHOOLS

Bibliography of Research Related to Secondary Education

Spring 1990

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Center Mission

The National Center on Effective Secondary Schools conducts research on how high schools can use their resources to enhance student engagement in order to boost the achievement of all students. Its main studies deal with higher order thinking in the curriculum, programs for students at risk, the stratification of learning opportunities, the quality of teachers' work life, and noninstructional influences on adolescents' achievement.

Clearinghouse Services

The Center includes a Clearinghouse, which provides an annotated bibliography and research syntheses on topics relevant to effective secondary schools. The general bibliography reflects five years of the Center's research on secondary education and contains about 500 references on such topics as student engagement, class size, governance and organizational reform, grouping, school climate, school improvement programs, curriculum remedies, at-risk students and higher order thinking. Single copies are available upon request from the Clearinghouse. Research syntheses are available at cost (see enclosed sheet). For more information, contact Madge Klais, Reference Coordinator, Clearinghouse, National Center on Effective Secondary Schools, University of Wisconsin, 1025 W. Johnson Street, Madison, WI 53706. Telephone: (608)-263-7575.

Regular Center Publications

In the Fall and Spring of each year, the Center publishes a newsletter that offers analyses of substantive issues. To be placed on the mailing list to receive this publication free of charge, please contact Anne Turnbaugh Lockwood, Dissemination Coordinator, National Center on Effective Secondary Schools, University of Wisconsin, 1025 W. Johnson Street, Madison, WI 53706. Telephone: (608)-263-7575.

BIBLIOGRAPHY OF RESEARCH RELATED TO SECONDARY EDUCATION

This bibliography provides a recommended list of research and theoretical literature in the field of secondary education. It organizes the literature into three main topics: a category for references of general interest, another for reform strategies designed to promote academic achievement, and a third for literature relevant to the specific research projects conducted at the National Center on Effective Secondary Schools. These citations have been selected upon consultation with researchers at the Secondary Center and other universities and educational research institutions. Each citation also includes an ERIC access number, if available, at the end.

A bibliography prepared by Madge Klais at the National Center on Effective Secondary Schools, Wisconsin Center for Education Research, School of Education, University of Wisconsin-Madison, which is supported in part by a grant from the Office of Educational Research and Improvement, U.S. Department of Education (Grant No. G-008690007). We are grateful for the assistance of Susan Bennett, Lorene Folgert, Fran Weber, Lynn Lunde, Jean Norman, and Nancy Broughton and the reference staff at the Instructional Materials Center at the University of Wisconsin-Madison.

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BIBLIOGRAPHY OF RESEARCH RELATED TO SECONDARY EDUCATION

I. REFERENCES OF GENERAL INTEREST IN SECONDARY EDUCATION

Adler, M. J. (1982). The Paideia proposal: An educational manifesto. New York: Macmillan. (ED 253 912)

Presents a proposal to change the workings of public school education so that all students receive the same quantity and quality of education. Examines the student who possesses a lifelong learning habit and is not put into a learning track. Proposes setting up a curriculum with no electives except a foreign language. Describes the role of the teacher and the principal. Details the role of higher education and the future students of this curriculum.

Ascher, C. (1986). Black students and private schooling. Urban Review, 18(2), 137-145. (EJ 348 528)

Presents an overview of research on blacks in private schools. Describes which black families send children to private schools, and why, the availability of financial assistance, black student achievement in private schools, the quality of education offered to blacks at private schools, and the impact of private schooling on students' racial identity.

Atkin, J. M. et al. (1981). America's schools: Public and private. Daedalus, 110(3).

Devotes the entire journal to essays of a general nature on the status of American schools. Summarizes the articles in the preface. Includes these authors and titles: Tyack and Hansot, "Conflict and Consensus in American Public Education"; Bailey, "Political Coalitions for Public Education"; Kirst, "Loss of Support for Public Secondary Schools: Some Causes and Solutions"; Cohen and Neufeld, "The Failure of High Schools and the Progress of Education"; Atkin, "Who Will Teach in High School?"; McAndrew, "The High-School Principal: Man in the Middle"; Graham, "Literacy: A Goal for Secondary Schools"; Grant, "The Character of Education and the Education of Character"; Kagan, "The Moral Function of the School."

Boyer, E. L. (1983). High school: A report on secondary education in America. New York: Harper & Row. (ED 242 227)

Surveys the state of American secondary education under the auspices of the Carnegie Foundation for the Advancement of Teaching. Maintains that the success of secondary education and the nation's future are inextricably linked. Offers an agenda for action that includes clarification of goals, improvement of language skills, development of a core curriculum, training students for the world of work, requiring community service for all students, improvement of teachers' working conditions, enrichment of instruction with technology, and improvement of principal leadership training.

Branscomb, L. S. et al. (1986). A nation prepared: Teachers for the 21st century. The Report of the Task Force on Teaching as a Profession. New York: Carnegie Forum on Education and the Economy. (ED 268 120)

Argues that if the United States is to have a vibrant democracy, avert the growth of a permanent underclass, and have a high-wage economy, schools must graduate the vast majority of students with achievement levels long thought possible only for a privileged few. Presents an integrated plan for restructuring the schools and redefining teaching as a career.

Bryk, A. S., Holland, P. B., Lee, V. E., & Carriedo, R. A. (1984). Effective Catholic schools: An exploration: Executive summary. Washington, DC: National Center for Research in Total Catholic Education, National Catholic Educational Association.

Summarizes the results of a two-year inquiry into the effectiveness of Catholic schools with a focus on Catholic secondary schools. Highlights findings of an NCEA technical report on the study. Finds that the school culture reflects conceptions of the Catholic church that emphasize community and social responsibility, that the curriculum emphasizes core academic courses, that there is minimal tracking and a conscious effort to distribute fairly educational opportunities to all students, that students demonstrate a high level of engagement in classroom activities, and that teachers are concerned with students' personal development. Points out problems with governance and financing.

Cazden, C. B. (1988). Classroom discourse: The language of teaching and learning. Portsmouth, NH: Heinemann. (ED 288 206)

Addresses how patterns of language use affect what counts as knowledge and what occurs as learning in classrooms from preschool to the university level. Investigates how these language patterns influence the equality of students' educational opportunities.

Cherryholmes, C. H. (1988). Power and criticism: Poststructural investigations in education. New York: Teachers College Press.

Seeks to make the ideas of poststructural theorists accessible to the uninitiated. Applies poststructural criticism to contemporary thought, challenging underlying assumptions of educational policy and practice. Analyzes, in particular, construct validity, the taxonomies of Bloom and others, Tyler's rationale, Schwab's "The Practical 4," empirical research and critical practice, relationships between textbooks and teaching, and relativism. Questions narrow educational pragmatism that focuses only on what works.

Chubb, J. E., & Moe, T. M. (1988). Politics, markets, and the organization of schools. American Political Science Review, 82(4), 1065-1087. (ED 263 674)

Presents a comparative analysis of public and private schools using data from a new national study, the Administrator and Teacher Survey. Finds that public and private schools are distinctively different in environment and organization and that private schools are more likely to possess the characteristics widely believed to produce effectiveness. Argues that the differences across the sectors are anchored in the logic of politics and markets. Maintains that environmental context has pervasive consequences for the organization and operation of all schools and specifically that the key differences between public and private environments - and thus between public and private schools - derive from their characteristic methods of social

control: the public schools are subordinates in a hierarchic system of democratic politics, whereas private schools are largely autonomous actors "controlled" by the market.

Coleman, J. S., & Hoffer, T. (1987). Public and private high schools: The impact of communities. New York: Basic Books.

Presents an extension of the authors' 1982 study, High School Achievement. Analyzes data from the first followup of the High School and Beyond survey. Compares public and private students' growth in achievement over the last two years of high school. Compares what becomes of these students after high school. Discusses the orientation toward schooling represented by public and private schools and the importance of various communities in influencing the choices that students make and their achievement. Offers suggestions for families on how to evaluate their choice of a school and makes policy recommendations.

Coleman, J. S., Hoffer, T., Kilgore, S. (1982). High school achievement: Public, Catholic and private schools compared. New York: Basic Books.

Addresses tuition tax credits and education vouchers through the issue of whether private schools provide better education than public schools. Demonstrates that students in private and Catholic high schools academically outperform public school students. Discusses the notion that private schools are good because they select better students and public schools are poor because they have to take all students. Concludes that school order and discipline, regular homework, and a high level of teacher involvement are important attributes of an achieving high school.

Coles, R. et al. (1981). America's schools: Portraits and perspectives. Daedalus, 110(4).

This is the second of two Daedalus issues on public and private American schools. Presents in this volume portraits of individual exemplary schools, particularly in the private sector. Proposes that such portraits will encourage the development of procedures for judging the objectives that schools strive for, their successes, and their failures.

The College Board. (1983). Academic preparation for college: What students need to know and be able to do. New York: Author. (ED 232 517)

Presents a comprehensive description of the knowledge and skills needed by all college entrants. Describes what they need to learn in six Basic Academic Subjects that provide the specific knowledge and skills on which college-level study is based. Discusses what they need to learn in six Basic Academic Competencies that are general skills necessary for effective work in all subjects. Includes requirements for computer competency.

Congress of the United States. (1987). Educational achievement: Explanations and implications of recent trends. Washington, DC: Congress of the United States, Congressional Budget Office.

Analyzes trends in standardized test scores that are described in the Congressional Budget Office study, "Trends in Educational Achievement" (April 1986). Posits causes for the decline in test scores in the 1960s and 1970s and the subsequent widespread and significant rise in scores. Finds these implications for formulating and evaluating educational policies: 1) no single national achievement test should be relied upon for assessing student progress, but a number of tests varying in content and format should be used; 2) these tests should be accompanied by

collection of data about pertinent educational and noneducational factors such as demographic trends and dropout rates; 3) information should be gathered on how trends in scores have been deflected from the course they would have followed in the absence of a particular policy in order to accurately evaluate that policy; 4) effectiveness of the current wave of reform initiatives should not be presumed on the basis of assumptions about what caused past trends; 5) initiatives need to be aimed at the elementary and middle grades as well as the secondary level; 6) higher order thinking skills need to be improved at all levels; 7) a focus of reform needs to be placed on the performance of certain traditionally low-scoring groups.

Cookson, P. W., & Persell, C. H. (1985). Preparing for power: America's elite boarding schools. New York: Basic Books.

Describes elite boarding schools as institutions that process upper class students for upper class jobs. Analyzes the structure and function of prep schools, including the socialization process. Explores the role that the elite boarding schools play in maintaining upper class cohesion and privilege in the U.S.

Corcoran, T. B. (1985). Effective secondary schools. In R. Kyle (Ed.), Reaching for excellence: Effective schools source book. Washington, DC: National Institute of Education. (ED 257 837)

Summarizes the research on effective secondary schools. Relates this research to the current reform movement and examines the limits of this knowledge base for the improvement of secondary education. Highlights those factors that promote school improvement and those that serve as obstacles to improvement.

Corcoran, T. B., & Wilson, B. L. (1986). The search for successful secondary schools: The first three years of the secondary school recognition program. Philadelphia, PA: Research for Better Schools. (ED 275 679)

Describes the Secondary School Recognition Program sponsored by the United States Department of Education. Compares organizational characteristics of the recognized schools with schools nationwide. Examines these recurrent features of effective schools: 1) A sense of shared purpose among faculty, students, parents, and the community, 2) effective leadership on the part of school principals, 3) teacher autonomy and collegiality, 4) recruitment of talented teachers and administrators, 5) rewards for teacher accomplishment, 6) positive student-teacher relationships, and 7) a high degree of involvement by parents and community members in school affairs. Includes a sample of the nomination forms and the site visit guide used by the Recognition Program.

Cusick, P. A. (1973). Inside high school: The students' world. New York: Holt, Rinehart and Winston.

Explores life inside a high school from the students' point of view. Describes how a number of students behave and the way that their behavior affects themselves, the teachers, administrators, and the entire school organization. Examines the sociocultural characteristics of the school's organization and some of its intended and unintended effects.

Cusick, P. A. (1983). The egalitarian ideal and the American high school: Studies of three schools. New York: Longman.

Reports on a study designed to probe the complexities of the interactions and behaviors of black and white students, the decisions teachers make and execute, the roles and behaviors of administrators, and the values that both shape and reflect personal and institutional functions in three public high schools in a major metropolitan area. Finds animosity between blacks and whites, which worked against the creation of common norms or communal perspectives and which occupied much time and energy of teachers and administrators in maintaining order. Finds that curriculum was shunted aside as teachers freely chose their own methods of instruction, creating a curriculum that appealed to them which led to some excellent instruction but lacked common goals. Questions the legitimacy of the egalitarian ideal in schools.

Ekstrom, R. B., Goertz, M. E., & Rock, D. A. (1988). Education and American youth: The impact of the high school experience. Philadelphia, PA: Falmer Press.

Examines policy issues in the areas of excellence, equity, and choice that have been raised by the educational reform movement of the 1980s. Uses data from the National Longitudinal Survey of 1972 and the High School and Beyond study to describe changes in American high schools and their students between 1972 and 1982 and to discuss how these changes relate to the test score declines of the period. Focuses on factors that appear to contribute to achievement and persistence during the last two years of high school and investigates whether educational processes work the same for all students. Concludes with a set of general policy recommendations designed to increase both equity and excellence in American schools.

Gaddy, G. (1988). High school order and academic achievement. American Journal of Education, 96(4), 496-518.

Identifies these limitations on the research relative to school order and academic achievement: Little of it directly addresses the relationship between the two; much of it focuses on elementary schools; much of it exhibits a low level of analysis. Reviews those studies that provide useful information on school order and achievement including Fifteen Thousand Hours and studies arising from the High School and Beyond project. Concludes that based on these studies, the relationship of school order and achievement is unclear. Recommends a more careful consideration of the nature of school order and its relationship to the broader concept of discipline as a starting point for new research.

Goodlad, J. I. (1984). A place called school: Prospects for the future. New York: McGraw-Hill. (ED 236 137)

Presents the findings of an eight-year research project on the current state of schooling. Calls for total change in each school's climate based on what its community wants. Recommends lowering the mandatory school age to 4 to 16, a general education that is 70% to 80% common for all students, elimination of ability grouping and tracking, emphasis on equality of access to knowledge, smaller schools, and teaching teams headed by super tutors.

Grant, G. (1988). The world we created at Hamilton High. Cambridge, MA: Harvard University Press.

Recounts the history of Hamilton High (a real school with a fictitious name) from its foundation in 1953 to the present. Contrasts the world of Hamilton High with other possible secondary school environments. Recommends two essential reforms: 1) that principals and teachers be given control of their school so that they may create an institution with a strong positive ethos and 2) that the teaching profession be reformed so that teachers can assume genuine responsibility for their practice.

Haertel, E. H., James, T., & Levin, H. M. (1987). Comparing public and private schools, Vol. 2: School Achievement. New York: The Falmer Press. (The Stanford Series on Education and Public Policy).

Reports the findings of a comparison of public and private schools initiated by the Institute for Research on Educational Finance and Governance at Stanford University and based on data from the High School and Beyond study sponsored by the National Center for Education Statistics and carried out by the National Opinion Research Center. Continues the debate over the apparent greater growth in student achievement in Catholic high schools than in public schools first reported by Coleman, Hoffer, and Kilgore in 1981.

Hampel, R. (1986). The last little citadel: American high schools since 1940. Boston: Houghton Mifflin.

Traces the history of the American high school from the era of strict enforcement of rules to the present era of the formation of relationships between teacher and student.

Hawley, W. D., Rosenholtz, S. J., Goodstein, H., & Hasselbring, T. (1985). Good schools: What research says about improving student achievement. Peabody Journal of Education Research, 61(4), 1-178. (EJ 314 588)

Reviews research findings in order to identify elements that influence student academic achievement. Focuses on effective teaching, the effect of school leadership on achievement, the schoolwide learning environment, learning resources, and parent involvement. Includes an extensive bibliography.

Kirsch, I. S., & Jungeblut, A. (1986). Literacy: Profiles of America's young adults. Princeton, NJ: National Assessment of Educational Progress at Educational Testing Service. (ED 275 620)

Reports and analyzes the results of the 1985 assessment of the literacy skills of America's 21-to 25-year-olds conducted by the National Assessment of Educational Progress (NAEP). Defines literacy. Concludes that "illiteracy" is not a major problem of this segment of the population but that "literacy" is; that is, many young adults cannot perform literacy tasks that require them to apply complex information-processing skills and strategies.

Koehler, V. (1987). Educator's handbook: Research into practice. New York: Longman.

Examines methods of thinking about instructional practices that have emerged from current research on teaching and schooling. Concentrates on the practical rather than the research

methodology aspects. Emphasizes five areas: 1) what the teacher should teach, 2) how the teacher should teach it, 3) what the teacher should know about his/her students, 4) the school and community, and 5) professional issues. Offers suggestions in defining teaching practices, alternative actions, and assessment of the effects.

Leestma, R. et al. (1987). Japanese education today. A Report from the U.S. Study of Education in Japan. Washington, DC: U.S. Department of Education. (ED 275 620)

Reports on a study conducted by the U.S. Department of Education on education in Japan. Seeks to understand Japanese accomplishments in education, how and why the system works, and the dynamics of education in relation to Japanese society. Briefly examines problems in education and the current reform movement in Japan. Sketches implications for improving American education.

Lightfoot, S. L. (1983). The good high school: Portraits of character and culture. New York: Basic Books.

Presents portraits of six successful American high schools. Notes that school effectiveness is closely associated with self-criticism and a recognition of imperfection. Questions the usefulness of reform that aims at standardization and perfection.

Lipsitz, J. (1977). Growing up forgotten: A review of research and programs concerning early adolescence. Lexington, MA: Heath.

Reviews research and programs concerning early adolescence. Addresses the biological, socio-emotional, and cognitive development of adolescents. Finds that despite the critical importance of this age group, the intellectual and economic resources of the research community are not being allocated to its study. Concludes that researchers lack a framework to undergird their research on adolescence.

Lipsitz, J. (1984). Successful schools for young adolescents. New Brunswick, NJ: Transaction Books. (ED 240 209)

Presents cases of four successful middle schools. Identifies these characteristics, among others, of successful schools for young adolescents: 1) a willingness and ability to adapt all school practices to the individual differences in intellectual, biological, and social maturation of their students, 2) a belief in positive school climate as a goal rather than a process toward a goal, 3) a clarity about the purposes of intermediate schooling and the students they teach, 4) principals who have a vision of what school should be for this age group, who see their major function to be instructional leadership, and who secure the autonomy of their schools in their districts, and 5) a lack of adult isolation.

Lortie, D. C. (1975). Schoolteacher: A sociological study. Chicago: University of Chicago Press.

Presents the first full-length study of teachers within the context of the sociology of occupations, based on empirical research. Discusses selective recruitment of teachers, their socialization into the occupation, and quotes extensively from interviews with teachers in the Boston area and in Dade County, Florida, on the rewards and difficulties of teaching. Describes the special role of women in the profession. Characterizes American teachers as conservative, individualistic, and oriented to the present. Provides suggestions for practical actions and further research ideas.

Massachusetts Board of Education. (1988). Equity in secondary schools: New perspectives. Quincy, MA: Office of Educational Equity, The Commonwealth of Massachusetts Department of Education.

Attempts to define educational equity in operational terms beyond eliminating the most obvious forms of discrimination. Makes extensive recommendations for promoting educational equity, including: 1) defining broadly and clearly the common skills that all students are expected to master, 2) allowing and helping each school to work out its own distinctive strategy to develop these competencies in every student, 3) fostering networks of effective secondary schools, 4) organizing secondary schools in cross-age groups of no more than 300 students, 5) providing more choice of the style in which to learn, and 6) offering a variety of opportunities for specialized training and advanced study after the common competencies have been mastered.

McNeil, L. (1986). Contradictions of control: School structure and school knowledge. New York: Routledge and Kegan Paul.

Examines four high schools operating under various administrative goals to demonstrate the varying effects on teaching procedures and pupil learning. Indicates that school administrations which overemphasize orderliness and the accumulation of meaningless graduation units cause teachers to control pupils by making work easy with little real learning. Finds that good school administrations, either directly or by the use of strong department heads, can also stress challenging materials and critical thinking.

National Catholic Educational Association. (1985). The Catholic high school: A national portrait. Washington, DC: National Catholic Educational Association. (ED 251 365)

Presents a national composite view of the resources, programs, facilities, personnel and policies of Catholic high schools. Describes the schools by gender composition, size, governance, and percentage of students from low-income families. Assesses how Catholic high schools influence students in the areas of academics, life skills, values, and faith. Identifies features of schools that are particularly effective in promoting student growth.

National Catholic Educational Association. (1986). Catholic high schools: Their impact on low-income students. Washington, DC: National Catholic Educational Association. (ED 269 509)

Evaluates how well Catholic schools serve students from all socioeconomic, racial, and ethnic backgrounds. Defines how those schools with large percentages of low-income students function. Describes how low-income students fare in Catholic high schools. Identifies those institutional characteristics such as curriculum, school climate, and resources that promote desirable outcomes among low-income students. Makes nine recommendations for strengthening and preserving Catholic schools that serve the economically disadvantaged.

Oakes, J. (1985). Keeping track: How schools structure inequality. New Haven: Yale University Press. (ED 274 749)

Examines issues surrounding tracking, the system of grouping students for instruction on the basis of their ability. Provides evidence that tracking is done subjectively and leads to different and unequal educational experiences. Concludes, on the basis of data on student achievement and attitudes in 25 schools, that teenagers in low tracks, often poor and minority students,

receive a noticeably inferior education regarding the amount of culturally valued knowledge transmitted, the conditions of their classrooms, and the quality of their school relationships with adults and classmates. Proposes tracking be replaced by heterogenous grouping and offers guidelines for implementation.

Pellicer, L. O., Anderson, L. W., Keefe, J. W., Kelley, E. A., & McCleary, L. E. (1988). High school leaders and their schools, Vol. I: A national profile. Reston, VA: National Association of Secondary School Principals.

Analyzes and describes the high school principalship and assistant principalship in five major areas: 1) the personal/professional characteristics and opinions of senior high school principals and assistant principals, 2) their job-related tasks and problems, 3) the characteristics of senior high school programs and teachers, 4) the role assistant principals play in the school leadership team, and 5) the career patterns in the principalship.

Perrone, V. (Ed.). (1985). Portraits of high schools. Princeton, NJ: Princeton University Press.

Presents portraits of high schools prepared as part of the research for High School, a 1983 report on secondary education issued by The Carnegie Foundation for the Advancement of Teaching. Represents a cross section of American public secondary schools and includes interviews with principals, teachers, students, and parents. Supplements policy reports of the 1980s which have renewed public interest in education.

Powell, A. G., Farrar, E., & Cohen, D. K. (1985). The shopping mall high school: Winners and losers in the educational marketplace. Boston: Houghton Mifflin.

Describes the strategies that Americans have devised to make serious educational demands on students and to graduate almost every student. Observes that in achieving these goals, a high school system has been created in which there are winners and losers. Explores the reasons why so many parents, teachers, and students are satisfied with things as they are despite the fact that so many students are not really learning, and explains why change is so often resisted. Suggests ways for committed parents and teachers to improve the likelihood that all students will be well served by American high schools.

Presseisen, B. Z. (1985). Unlearned lessons: Current and past reforms for school improvement. Philadelphia, PA: Falmer Press.

Evaluates the significance of the reports on education of the 1980s and compares them with previous periods of educational reform. Draws lessons for the future of American education on the basis of historic conditions and with respect to findings in current educational research and practice.

Ravitch, D., & Finn, C. E., Jr. (1987). What do our 17-year-olds know: A report on the first national assessment of history and literature. New York: Harper and Row.

Reports on an assessment made in 1986 of the knowledge of history and literature possessed by 8000 17-year-olds. Finds that they could correctly answer 54% of the history questions and 52% of the literature questions. Includes an analysis of what teenagers are reading, how much television they watch, what influence their home environment has on academic achievement. Makes recommendations to improve the teaching of history and literature.

Resnick, L. B. (1987). Learning in school and out. Educational Researcher, 16(9), 13-20.

Identifies four general classes of discontinuity between learning in school and the nature of cognitive activity outside school. Suggests that modifying schooling to better able it to promote skills for learning outside school may simultaneously renew its academic value. Recommends the development of more effective forms of vocational and professional preparation than now exist - forms more closely linked to job performance than those now customary. Sees a role for formal schooling in preparing people to be adaptive to the various settings that they may encounter over the course of their lives and in preparing them to participate knowledgeably and effectively in the civic functions of a technologically complex democratic society.

Rosenbaum, J. E. (1976). Making inequality: The hidden curriculum of high school tracking. New York: John Wiley & Sons.

Discusses the insidious nature and consequences of rigid tracking systems. Examines issues in tracking that have been neglected in most survey investigations of curriculum effects.

Rutter, M., Maughan, B., Mortimore, P., Ouston, J., & Smith, A. (1979). Fifteen thousand hours: Secondary schools and their effects on children. Cambridge, MA: Harvard University Press.

Reports on a study of 12 London secondary schools. Concludes that schools have an important impact on children's development and that which school a child attends matters. Found these variables associated with good pupil behavior and high achievement: high standards of achievement and behavior set by the schools, teachers who provide good models of behavior, praise of students and encouragement of student responsibility, and well-conducted lessons. Found the following factors to be of little statistical significance: small school population, modern school facilities, small teacher-pupil ratio, continuity of individual teachers, and firm discipline in which unacceptable behaviors are severely punished.

Secada, W. G. (Ed.). (1989). Equity in education. Philadelphia, PA: Falmer Press.

Asserts that "in the recent past, within both the United States and Great Britain there has been a shift away from concern for those for whom certain social arrangements have resulted in an unequal distribution of goods - wealth as well as education - towards a concern for more efficient production in terms of economic, military and education systems." Seeks to help bring equity back into the fore of educational discourse and provide new insights into the nature of equity. Presents a collection of essays on this topic by M. W. Apple, P. B. Campbell, G. Harvey, S. S. Klein, W. G. Secada, C. Grant, K. Freedman, S. Selden, E. Fennema, M. R. Meyer, and J. Sanders.

Shulman, L. S., & Sykes, G. (Eds.). (1983). Handbook of teaching and policy. New York: Longman.

Discusses the complexities of schools and classrooms, teaching as work and profession, teaching from the perspectives of teachers, and the relationships of teaching and educational policy. Combines research on teaching with an analysis of policy. Summarizes research on classroom complexities. Offers recommendations on maintaining and attracting good teachers.

Sizer, T. S. (1984). Horace's compromise: The dilemma of the American high school. Boston: Houghton Mifflin.

Presents the first report from a study co-sponsored by the National Association of Secondary School Principals and the National Association of Independent Schools. Reports on observations conducted during a two-year period in 80 schools in 15 states. Creates a series of descriptions of people, programs, and bureaucracy, contrasting good and bad learning situations. Finds that schools do not stimulate students to learn or force them to exhibit mastery of a subject. Recommends that schools keep the structure simple and flexible so that teachers and students can work in their own best way, that they focus on the use of the mind, and that they set correct incentives.

Tomlinson, T. M., & Walberg, H. J. (1986). Academic work and educational excellence: Raising student productivity. Berkeley, CA: McCutchan.

Presents a selection of papers commissioned by the National Commission on Excellence in Education to provide background information for its deliberations prior to the preparation of its report entitled A Nation at Risk: The Imperative for Educational Reform. Surveys student life and learning from kindergarten through college. Offers a scholarly basis to support the assertions put forth in A Nation at Risk.

Tye, B. B. (1985). Multiple realities: A study of thirteen American high schools. Lanham, MD: University Press of America.

Discusses a follow-up study to John Goodlad's A Place Called School. Analyzes 525 high school classrooms. Finds pervasive control, sameness in curriculum and teaching methods, tracking of students, and resistance to change. Concludes that classroom instruction has not changed and that teachers are absolute rulers in their own classrooms. Offers suggestions for the revitalization of American high schools.

Venezky, R. L., Kaestle, C. F., & Sum, A. M. (1987). The subtle danger: Reflections on the literacy abilities of America's young adults. Princeton, NJ: Center for the Assessment of Educational Progress, Educational Testing Service. (ED 284 164)

Analyzes the results of the National Assessment of Education Progress (NAEP) conducted in 1984 to assess the literacy abilities of young adults, ages 21-25. Concludes that the literacy skill levels found in the NAEP survey are not adequate, on average, for maintaining world leadership in a changing, technological society at the end of the 20th century. Recommends that a curriculum be devised that teaches the underlying skills and strategies required by everyday literacy tasks and to extend this education to nonschool agencies: job training, government programs for the unemployed and the poor, television, etc.

Westbury, I. (1988). How should we be judging the American high school? Journal of Curriculum Studies, 20(4), 291-315.

Compares the American high school with secondary education internationally and finds that at the point in time when Americans are looking to other nations for models of schooling, other nations see the unreformed U.S. school system as a model for their own systems. Critiques the ways in which various countries define "schooling" and how these definitions influence comparisons of education among nations. Maintains that Americans define "schooling" in an

expansive and inclusive way because education is seen as fundamental to the American notion of citizenship which is that the right to education is one aspect of the right to participate in all institutional areas of the social order. Suggests that the debate over school reform should be regarded as a dialectic between elitism and egalitarianism, between stratification and incorporation. Contends that a core curriculum such as that proposed by E. D. Hirsch in Cultural Literacy is actually a radical program that challenges the stratification of American secondary education. Maintains that the traditions out of which Hirsch's work grows should be defining the future of our thinking about a curriculum for all.

Wittrock, M. C. (Ed.). (1986). Handbook of research on teaching (3rd ed.). A project of the American Educational Research Association. New York: Macmillan.

Serves as a companion book to the American Educational Research Association's Encyclopedia of Educational Research (5th ed. Macmillan, 1982). Contains 35 original state-of-the-art essays on concepts, models, and evaluations of teaching techniques and curriculum content. Includes extensive bibliographic data, plus author and subject indexes.

Wolcott, H. F. (1977). Teachers versus technocrats. Eugene, OR: Center for Educational Policy and Management, University of Oregon.

Draws attention to the logical connection between past and current problems in educational innovation and the need to decode inside school processes. Presents a methodological and analytical connection between decoding inside school processes and ethnographic method and related social science constructs.

II. GENERAL REFORM STRATEGIES FOR ACADEMIC ACHIEVEMENT

School-based reform strategies and their impact on student achievement including intermediate goals such as increased student motivation and engagement:

A. GENERAL REFERENCES:

Chubb, J. E. (1988). Why the current wave of school reform will fail. The Public Interest, 90, 28-49.

Posits that the premises supporting current educational reforms may be wrong about what causes poor student performance. Asserts that schools need to be approached as complex institutions and that significant gains in student achievement may require basic changes in the ways schools are governed and organized.

Cohen, D. K. (1987). Educational technology, policy, and practice. Educational Evaluation and Policy Analysis, 9(2), 153-170.

Discusses the relations between educational policy and teaching practice in instructional innovations. Attempts to explain the slow pace of instructional reform and the seeming failure of many exciting instructional innovations, in particular computer technology. Contends that policies and programs depend on practice and that instructional practice in schools is situated in a larger organization and a longer history of academic instruction than are usually considered.

Offers a view of educational policy and innovation that solves some problems in inherited accounts. Suggests that analysts should cross several academic barriers, joining studies of policy and school organization to studies of instructional practice, and taking into account the large social and historical perspectives.

Corcoran, T. B. (1985). Effective secondary schools. In R. Kyle (Ed.), Reaching for excellence: Effective schools source book. Washington, DC: National Institute of Education. (ED 257 837)

Summarizes the research on effective secondary schools. Relates this research to the current reform movement and examines the limits of this knowledge base for the improvement of secondary education. Highlights those factors that promote school improvement and those that serve as obstacles to improvement.

Cuban, L. (1982). Persistent instruction: The high school classroom 1900-1980. Phi Delta Kappan, 64(2), 113-118. (EJ 269 865)

Points out that the overall picture of high school teaching since 1900 is striking in its uniformity. Summarizes research findings and suggests measures for teacher improvement that might be taken in schools of education and in district inservice training.

Cuban, L. (1990). Reforming again, again, and again. Educational Researcher, 19(1), 3-13.

Examines why educational reforms recur. Analyzes the dominant explanation presented by researchers and policymakers: the lack of rationality in proposing and implementing planned change. Offers alternative explanations for repeated reforms based on the organizational perspective of a number of researchers.

Curry, L. (1990). Learning styles in secondary schools: A review of instruments and implications for their use. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin-Madison.

Seeks to encourage the thoughtful use of learning style concepts in secondary school classrooms in response to individual differences among students. Identifies four areas of potential impact of these concepts: in curriculum design, instructional methods, assessment methods, and student guidance. Offers a new taxonomy of learning styles in an effort to eliminate confusion over definitions. Summarizes literature that indicates positive results for students from matching student learning style to features of instruction and testing. Reviews literature on the efficacy of direct training on aspects of motivation, engagement, and cognitive controls. Suggests that at present a weakness exists in the reliability and validity of the measurements of learning style and in the identification of relevant characteristics in learners and instructional settings.

Darling-Hammond, L., & Berry, B. (1988). The evolution of teacher policy. New Brunswick, NJ: Center for Policy Research in Education, Rutgers, University; Santa Monica, CA: RAND Corporation. (ED 298 599)

Analyzes the historical basis of recent teacher reforms and the concepts of teaching that new policies fostering teacher professionalism embody. Examines trends in state teacher policies governing certification and compensation implemented between 1978 and 1986. Targets the long-standing tension between the view of teachers as semiskilled workers who simply implement

standards hierarchically imposed and the vision of them as skilled professionals who apply specialized knowledge to meet the unique needs of each student.

Dunn, R., & Griggs, S. A. (1988). Learning styles: Quiet revolution in American secondary schools. Reston, VA: National Association of Secondary School Principals. (ED 301 948)

Reports on nine secondary schools where instruction has been redesigned to respond to students' diversified learning styles. Contends that the application of learning style research in a school setting is useful and practical.

Elmore, R. F., & McLaughlin, M. W. (1988). Steady work: Policy, practice, and the reform of American education. Santa Monica, CA: RAND Corporation.

Analyzes the relationship between educational policymaking and educational practice in schools and classrooms. Asserts that reforms cannot be expected to have large-scale or long-term effects unless they involve substantial dialogue among policy, administration, and practice. Finds that federal policy has extended its reach to all activities of schooling, that in all federal reform policies there is a tendency to substitute external authority - social science methods, university experts, regulatory requirements, and legal principles - for the authority and expertise of educational practitioners, that reforms succeed to the degree that they adapt to and capitalize upon variability, that adaptation is a matter of active problem-solving, and that lags in implementation and performance are a central fact of reform. Concludes that the "steady work" of educational reform must be grounded in an understanding of how teachers learn to teach, how school organization affects practice, and how these factors affect childrens' performance.

Farrar, E., & Cipollone, A. (1988). The business community and school reform: The Boston Compact at five years. Madison, WI: National Center on Effective Secondary Schools. Buffalo, NY: State University of New York at Buffalo.

Analyzes the success of the Boston Compact, an agreement between the Boston business community and the public schools to provide money to attend college and to insure employment after graduation from college. Concludes that job assurances have neither reduced the dropout rate nor have district initiatives led to substantive improvements in the high schools.

Farrar, E., Neufeld, B., & Miles, M. B. (1983). Effective schools programs in high schools: Implications for policy, practice and research. Cambridge, MA: Huron Institute. (ED 228 243)

Defines the effective schools movement as a program involving school staff in the diagnosis of problems, in decision-making on correcting the problems, in research on the effectiveness of various alternatives, and in training and assistance with improvement efforts. Examines the feasibility of transferring the effective schools program from the elementary level to that of high school. Discusses important differences between elementary schools and high schools that make this transference difficult.

Firestone, W. A. (1989). Using reform: Conceptualizing district initiative. Educational Evaluation and Policy Analysis, 11(2), 151-164.

Explores the district use of state reform. Refutes the hypothesis that local districts will comply minimally with mandates and respond to inducements with varying degrees of opportunism. Suggests that districts that actively use state reform mandates exhibit the will and capacity to respond positively. Defines will as the force rising from a dominant coalition that believes it can set its own agenda and sees the reforms as ways to meet its own ends. States that capacity comes through the formation of a temporary system that effectively manages key change functions and linkages with local schools.

Fuhrman, S., Clune, W. H., & Elmore, R. F. (1988). Research on education reform: Lessons on the implementation of policy. Teachers College Record, 90(2), 237-257.

Reports initial findings about the reform process and its effects in six states. Suggests a new model for the implementation of state reform that accounts for the trends in the current reform movement. Concludes that policymaker and educator support for reform, which is key to successful implementation, does not depend on participation in reform initiation and design; that compliance depends heavily on the extent to which the technical knowledge exists and school personnel feel competent to make the change; that to the extent that district activity is related to the political, social, and economic milieu, district context appears paramount; and that the reforms do not signal the end of local control.

Fullan, M. (1982). The meaning of educational change. New York: Teachers College Press.

Discusses a wide range of innovative reform programs in the U.S. and Canada as examples of the practical meaning of change, including projects involving various curriculum areas, microcomputers, career education, open-concept schools, desegregation, special education, Head Start and Follow Through programs, and locally initiated change as well as changes sponsored at the provincial, state, or national levels.

Grant, G. (1988). The world we created at Hamilton High. Cambridge, MA: Harvard University Press.

Recounts the history of Hamilton High (a real school with a fictitious name) from its foundation in 1953 to the present. Contrasts the world of Hamilton High with other possible secondary school environments. Recommends two essential reforms: 1) that principals and teachers be given control of their school so that they may create an institution with a strong positive ethos and 2) that the teaching profession be reformed so that teachers can assume genuine responsibility for their practice.

Gregory, T. B., & Smith, G. R. (1987). High schools as communities: The small school reconsidered. Bloomington, IN: Phi Delta Kappa Educational Foundation. (ED 278 518)

Claims that the size and structure of most high schools handicap effective education within them. Contends that small high schools, those with a population of 250 or less students, provide more satisfactory education because they foster a sense of community. Presents a model of an effective small high school. Offers suggestions for changing large high schools that cannot be abandoned. Makes recommendations for policy makers.

Hill, P. T., Wise, A. E., & Shapiro, L. (1989). Educational progress: Cities mobilize to improve their schools. Santa Monica, CA: RAND Corporation.

Reports on interviews with local school and community leaders in six urban school districts during the 1987-88 academic year. Includes these findings: 1) a failing urban school system can be turned around only if the entire community unites on its behalf; 2) "choice" plans that encourage parents to seek alternatives to public schooling are not necessary for improvement of big-city schools; 3) the prospects for real and sustained improvements are best when both community support and internal school organization are both well-developed and closely articulated; 4) public support can be sustained through the process of trial and error that big cities must undergo to improve schooling for the disadvantaged because the public sees that the failure of the education system could threaten the social and economic future of the community; 5) no improvement effort can succeed without an active school superintendent, but the superintendent need not dominate the process; 6) business leadership can provide the broad strategic thinking that places educational problems in the context of other community social and economic events; 7) various local groups can make plans, but they cannot create classroom changes without the participation of a powerful, well-led teachers' union; 8) state and federal governments, as well as foundations, should facilitate, but not control.

James, T., & Tyack, D. (1983). Learning from past efforts to reform the high school. Phi Delta Kappan, 64(6), 400-406. (EJ 276 322)

Reviews the history of reform movements in secondary education in the context of the overall development of secondary education since the 19th century. Suggests treating reports advocating reform as position papers helping make broad social changes intelligible by revealing the shifting relationships between changing concepts of education and society.

Kearns, D. T., & Doyle, D. P. (1988). Winning the brain race: A bold plan to make our schools competitive. San Francisco, CA: Institute for Contemporary Studies Press.

Presents a six-point program for educational reform: 1) Choice: Students and teachers choose the schools where they work; 2) Restructuring: Magnet schools are open year-round and run by teachers and principals; 3) Professionalism: Teachers set their own curricula and raise standards; 4) Standards: Academic standards are maintained and students are held to them; 5) Values; and 6) Federal responsibility.

Keefe, J. W. (1987). Learning style theory and practice. Reston, VA: National Association of Secondary School Principals.

Explains the theory of learning style and reviews literature on the topic. Discusses the assessment of individual student learning style and the role of brain behavior in "whole-brain education." Presents applications of learning style and suggests ways that classroom teachers can modify instruction to accommodate individual differences.

Kirst, M. W., & Meister, G. R. (1985). Turbulence in American secondary schools: What reforms last? Curriculum Inquiry, 15(2), 33-40.

Examines the history of reform in the secondary school curriculum and factors contributing to the durability of school reforms. Predicts secondary school reforms in the mid-1980s will be marginal despite the current atmosphere of intense criticism of American secondary education.

McDonnell, L. M., & Pascal, A. (1988). Teacher unions and educational reform. New Brunswick, NJ: Center for Policy Research in Education, Rutgers University; Santa Monica, CA: RAND Corporation.

Examines the role of organized teachers in educational reform efforts. Probes the extent to which teacher unions have attained more professional teaching conditions for their members through collective bargaining. Considers the political response of teacher organizations to national, state, and local reform initiatives. Presents ways in which the interests and activities of teacher organizations are likely to shape successive generations of educational reform, particularly efforts to restructure the teaching profession.

Mirel, J. E., & Angus, D. L. (1986). The rising tide of custodialism: Enrollment increases and curriculum reform in Detroit, 1928-1940. Issues in Education, 4(2), 101-120.

Seeks to discover how educational policy, student choices, and curriculum interacted during a period of severe economic and educational crisis. Attempts to answer these questions: 1) What is the relationship between curriculum reform and the youth labor market? 2) Does curriculum reform precede or follow enrollment growth? 3) To what extent and in what ways has the life of the high school curriculum been "diluted"? 4) Has curriculum reform contributed to racial and ethnic discrimination? Concludes that high school enrollment soared in the 1930s because the labor market could not support teenage workers rather than as a result of a change in the curriculum. Maintains that the "watering down" of the curriculum began in the 1930s to make the general program palatable to the new segment of the student body composed of working class and poor students; high school took on a greater custodial mission.

Murphy, J. (1989). Educational reform in the 1980s: Explaining some surprising success. Educational Evaluation and Policy Analysis, 11(3), 209-221.

Explores the success and failure of recent reform initiatives. Reviews the financial, political, and organizational factors that are often used to support the position that the types of reform measures common in the early and mid-1980s are likely to result in few substantive improvements. Argues that the educational reform recommendations from this period have been more successful than anticipated. Posits reasons for this unexpected outcome, including the observation that improvement efforts succeeded because they were built upon existing organizational structures.

Odden, A., & Marsh, D. (1988). How comprehensive reform legislation can improve secondary schools. Phi Delta Kappan, 69(8), 593-598.

Surveys the effect of California's statewide school reform legislation, S.B. 813, on local schools. Finds that: 1) virtually all schools implemented key provisions of S.B. 813 in a manner consistent with state purposes; 2) education reform legislated at the state level can be an effective means of improving schools when it is woven into a cohesive strategy at the local level; 3) successful implementation of reforms at the local level depends upon district leadership, collegiality among teachers, a heightened concern for all students, participation of teachers and site administrators in designing the local implementation of reforms, and follow-up coaching and assistance in schools and classrooms; and 4) attention to the substance of curriculum and instruction and to the process of school change correlates with higher test scores and improved learning conditions for all students.

Passow, A. H. (1984). Reforming schools in the 1980s: A critical review of the national reports. New York: ERIC Clearinghouse on Urban Education. (ED 242 859)

Notes that reform reports of the 1970s focused on the lack of relevance and humaneness of American high schools, whereas reports of the 1980s targeted high schools as units of industrial production and national security. Surveys the history of high school reform in the twentieth century. Summarizes 15 reports on high school reform produced in the 1980s. Questions contemporary perceptions of educational failure and critiques assumptions made in the recent reform reports.

Resnick, L. B. (1987). Learning in school and out. Educational Researcher, 16(9), 13-20.

Identifies four general classes of discontinuity between learning in school and the nature of cognitive activity outside school. Suggests that modifying schooling to better able it to promote skills for learning outside school may simultaneously renew its academic value. Recommends the development of more effective forms of vocational and professional preparation than now exist - forms more closely linked to job performance than those now customary. Sees a role for formal schooling in preparing people to be adaptive to the various settings that they may encounter over the course of their lives and in preparing them to participate knowledgeably and effectively in the civic functions of a technologically complex democratic society.

Rowan, B., Bossert, S. T., & Dwyer, D. C. (1983). Research on effective schools: A cautionary note. Educational Researcher, 4, 24-31.

Discusses current research on effective schools and questions the results of these studies as a guide to school improvement. Recommends standards for conducting future research on school effectiveness based on a program of research and development on effective principals. Includes reviews of several studies. Concludes that research in this area has problems in measures of effectiveness, research design, and global comparisons. Suggests caution for practitioners using the research as a guide to effective schools.

Sedlak, M. W., Wheeler, C. W., Pullin, D. C., & Cusick, P. A. (1986). Selling students short: Classroom bargains and academic reform in the American high school. New York, NY: Teachers College Press. (ED 276 149)

Claims that none of the recent proposals for educational reforms takes into account the relationship between educators and their students and the extent to which students are actively engaged in the learning process. Suggests that a tacit "bargain" exists between students and educators in most high schools which emphasizes classroom tranquility and de-emphasizes student engagement and academic learning. Analyzes current proposals to enhance educational standards in light of the power and influence of bargaining in classrooms.

Shanker, A. (1990). The end of the traditional model of schooling - and a proposal for using incentives to restructure our public schools. Phi Delta Kappan, 71(5), 345-357.

Argues that America's persistent educational crisis shows that society has reached the limits of its traditional model of education. Suggests that the way to institutionalize changes is to adapt to schools some of the principles on which the American economy is based, primarily the use of incentives. Recommends the establishment of long-term partnerships between high schools and businesses that agree to hire graduates on the basis of how well they do in school.

Recommends that no one should be admitted to college without being able to do college-level work. Proposes to initiate a voluntary, nationwide, multi-year competition open to every school in the United States to reward educational improvement.

Slavin, R. E. (Ed.). (1989). School and classroom organization. Hillsdale, NJ: Lawrence Erlbaum Associates.

Presents critical reviews of research on school and classroom organization. Focuses on the achievement effects of alternative school and classroom organizational practices. Examines such school organization issues as ability grouping, departmentalization, special and remedial programs, evaluation processes, and class size. Addresses questions at the classroom level concerning lesson organization and effective use of time. Reviews research on two widely used alternative classroom organization models, mastery learning and cooperative learning.

Timar, T. (1989). The politics of school restructuring. Phi Delta Kappan, 71(4), 265-275.

Assesses the school restructuring movement, the Coalition of Essential Schools and its surrounding policy environment, and the politics of American education. Provides a conceptual framework for understanding the organizational manifestations of restructuring. Presents findings from case studies of restructuring in three school districts. Interprets these restructuring reforms in the context of the existing literature on public policy and on the politics of education.

Timar, T. B., & Kirp, D. L. (1988). State efforts to reform schools: Treading between a regulatory swamp and an English garden. Educational Evaluation and Policy Analysis, 10(2), 75-88.

Examines three different reform strategies, those of Texas, California, and South Carolina, and how those strategies relate to reform outcomes. Argues that the current reform effort which aims at educational excellence will fail unless the policy culture shifts the strategic focus from regulation and compliance monitoring to mobilization of institutional capacity. Lauds the South Carolina reform effort because it demonstrates the need for balance between state accountability and local autonomy.

Walberg, H. J., & Keefe, J. W. (Eds.). (1986). Rethinking reform: The principal's dilemma. Reston, VA: National Association of Secondary School Principals.

Outlines problems of educational reform that currently confront principals. Examines questions concerning the necessity of reform, instructional leadership, time management, at-risk students, and school scheduling. Concludes with an evaluation of the utility of reform reports.

Walberg, H. J., & Lane, J. J. (Eds.). (1989). Organizing for learning: Toward the 21st century. Reston, VA: National Association of Secondary School Principals.

Provides an overview of 12 major current proposals for improving schooling, including Theodore Sizer's essential school, William Bennett's James Madison school, site-managed schools, mandate-responsive schools, value-driven schools, effective schools, schools within schools, and computerized schools.

Weis, L., Altbach, P. G., Kelly, G. P., Petrie, H. G., & Slaughter, S. (1989). Crisis in teaching: Perspectives on current reforms. Albany, NY: State University of New York Press.

Examines the definition of "teaching crisis," the evidence for the existence of a crisis, reforms proposed to solve it, and the possible effects of proposed reforms. Concludes that no simple answer can be found to the problems that beset teaching.

B. ORGANIZATIONAL REMEDIES

1. CHOICE IN EDUCATION

a. GENERAL REFERENCES:

Clune, W. H., & Witte, J. F. (Eds.). (in press). Choice and control in American education, Vol. 1: The theory of choice and control in education. Philadelphia, PA: Falmer Press.

Discusses the structural environment of American education, the theories of control that can be applied to schools and school districts, claims concerning the consequences of increasing choice and decentralizing school decision-making, and the normative issues surrounding choice and control options. Attempts to sort out the pro and con arguments for choice and decentralization. Presents what is known empirically about the effects of such proposals both in education and in other organizational settings.

Clune, W. H., & Witte, J. F. (Eds.). (in press). Choice and control in American education, Vol. 2: The practice of choice, decentralization and school restructuring. Philadelphia, PA: Falmer Press.

Reviews six types of organizational change: school-based management, magnet school choice systems, democratic localism, teacher empowerment and professionalization, state differential treatment of schools, and curriculum controls. Raises questions for further research.

Coons, J., & Sugarman, S. (1978). Education by choice: The case for family control. Berkeley, CA: University of California Press. (ED 165 249)

Discusses whether the family should exercise the authority to determine the educational experience of its children. Argues for experimentation with a program of parental choice that would be guided by professional counseling; supported by federal, state, and local funds; and regulated by minimal state requirements. Views the family as knowing and deciding what is best for the child, and sees family choice as proving most effective in advancing the primary objectives of the schools. Questions the traditional role of state control in education and suggests alternative solutions that include scholarship certificates that will allow each child to attend public or private schools of his or her family's choice, free transportation, and state provision of information and guidance to insure that families make informed choices.

Elmore, R. F. (1986). Choice in public education. Santa Monica, CA: Center for Policy Research in Education, RAND Corporation. (ED 278 149)

Reviews the current debate on whether locally centralized school systems of the kind that predominate in the public school sector are responsive to and can accommodate the diversity of educational consumers' preferences. Presents options available for incorporating choice in the public school system and considers the pros and cons regarding experimenting on this issue.

Glenn, C. L. (1989). Choice of schools in six nations. Washington, DC: U. S. Department of Education, Office of Educational Research and Improvement, Programs for the Improvement of Practice.

Surveys publicly-funded parent choice of schools that are available on a nonselective basis in five Western European countries and Canada. Targets three aspects of parent choice of particular interest to practitioners: 1) its historical background, 2) empirical research on the subject, and 3) current debates over whether it should be extended or curtailed. Concludes with observations about the viability and implementation of parent choice in general.

Institute for Contemporary Studies. (1977). Parents, teachers, and children. San Francisco, CA: Author. (ED 148 709)

Examines the arguments for expanding choice in education, whether by voucher, entitlement, or some other means. Considers the issues that must be resolved in introducing a choice system in education at the local, state, and federal level. Comprises 13 chapters, each written by a different authority, on the history of educational choice, the current state of the movement, and the prospects for implementing educational choice in the future.

Lamm, K. D. et al. (1986). Governor's task force on parent involvement and choice. Washington, DC: Governor's Task Force on Education.

Examines ways that states can encourage greater parental involvement in schools and choice in school selection. Attempts to answer policy-related questions as to how states can encourage parental involvement, and tries to define the states' role in assisting parents and school administrators in the school selection choice.

Levin, H. M. (1987). Education as a public and private good. Journal of Policy Analysis and Management, 6(4), 628-641.

Discusses the privatization of education from public to private institutions. Suggests that privatization of education might be appropriately viewed as an attempt to increase the production of private educational outcomes (those valued by families and students) while maintaining or improving the production of public educational outcomes (those valued by society). Compares different public and private sector arrangements for efficiency in the production of public and private goods. Recommends changes for schools.

Moore, D. R., & Davenport, S. (1989). High school choice and students at risk. Equity and Choice, 5(1), 5-10.

Outlines some of the potential dangers posed by high school choice programs for students identified "at-risk". Highlights these problems: 1) the easiest way for a magnet school to build

a reputation as a good school is to recruit high-achieving students and avoid admitting low-achieving students; 2) many magnet schools lack services for students with handicaps or limited English proficiency; 3) many magnet schools have complex and daunting admissions processes; 4) selective schools siphon-off high-achieving students and teachers and leave an even more concentrated population of low achievers in the neighborhood schools; 5) magnet schools may receive a greater allocation of resources than neighborhood schools; 6) those students who are not selected are demoralized. Includes recommendations to improve the admissions process for at-risk students.

Murnane, R. J. (1986). Family choice in public education: The roles of students, teachers, and system designers. Teacher's College Record, 88(2), 169-189. (EJ 345 370)

Discusses the merits and limitations of expanding family choice of education for children. Emphasizes how such choice affects students and teachers, what the competing objectives are, and what regulates the choices that families may make.

Nathan, J. (1984). Free to teach: Achieving equity and excellence in schools. Minneapolis, MN: Winston Press.

Outlines problems faced by the public schools. Discusses the effectiveness of parent and student choice of schools and programs as a potential solution to these problems. Proposes in particular the use of a voucher system to make schools more responsive to students and their parents.

Raywid, M. A. (1984). Synthesis of research on schools of choice. Educational Leadership, 41(7), 71-78. (EJ 299 439)

Discusses the success of alternative schools and the growing body of research supporting this educational reform. Reviews research focused on both the organizational features and curricular aspects of alternative, including magnet, programs and concludes that schools of choice offer heightened satisfaction to staff, parents and students and have positive effects on school climate and productivity.

Raywid, M. A. (1985). Family choice arrangements in public schools: A review of the literature. Review of Educational Research, 55(4), 435-467. (EJ 330 747)

Reviews the history of family choice opportunities in public schools. Offers detailed examinations of the several choice models that have proved widespread: 1) open enrollment plans, 2) magnet schools, 3) schools within schools, 4) satellites and separate alternatives, and 5) interdistrict choice plans.

Snider, W. (Ed.). (1987). The call for choice: Competition in the educational market place. Education Week, June 24.

Devotes the entire issue of this periodical to the topic of choice in education. Defines choice as an educational term that means giving parents the right to select their children's schools from a range of possible options. Surveys the current state of the choice movement and identifies those factors that play a key role in the popularity and success of schools of choice, including differentiation, cohesiveness, autonomy, and size. Discusses magnet schools at length. Reports interviews with parents and teachers on the subject of choice.

b. ALTERNATIVE SCHOOLS:

Duke, D. L., & Perry, C. (1978). Can alternative schools succeed where Benjamin Spock, Spiro Agnew, and B. F. Skinner have failed? Adolescence, 8(51), 375-392. (EJ 199 093)

Examines whether student behavior is as great a problem in 18 California alternative high schools as it is reported to be in regular high schools. Concludes that discipline is rarely a major concern in the alternative schools. Hypothesizes 14 reasons for this.

c. MAGNET AND SPECIALTY SCHOOLS:

Blank, R. K. (1989). Educational effects of magnet high schools. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin-Madison.

Synthesizes research on magnet schools in three areas: the scope of magnet high schools in public education, the outcomes of magnet high schools, and the overall effects of magnet high schools on education in a school district. Finds that magnet schools are playing a larger role in urban education then they were in 1983, that magnet schools have positive effects on outcomes, and that magnet schools are producing an increased demand for more magnet schools. Discusses policy and research implications.

Blank, R. K., Dentler, R. A., Baltzell, D. C., & Chabotar, K. (1983). Survey of magnet schools: Analyzing a model for quality integrated education. Washington, DC: James H. Lowry & Associates. (ED 236 304)

Discusses the U.S. Department of Education's two-year study of the effects and degree of success of magnet schools across a representative sample of urban districts. Examines questions concerning the impact of magnet schools on the quality of education and on desegregation. Analyzes the process by which magnet schools are effectively developed and identifies factors that lead to a successful program.

Clewell, B. C., & Joy, M. F. (1990). Choice in Montclair, New Jersey: A policy information paper. Princeton, NJ: Educational Testing Service.

Reviews various choice plans and their effectiveness in promoting quality education, achieving racial balance, and providing diverse educational program offerings. Describes the magnet model established in Montclair, New Jersey. Concludes that Montclair has been successful in implementing a magnet school plan that relies on choice to achieve racial balance and provide a quality education for all students through a diversity of programs. Analyzes factors contributing to this success, including the type of school district and community, quality of leadership, and planning strategies.

Metz, M. H. (1986). Different by design: The context and character of three magnet schools. Boston, MA: Routledge and Kegan Paul.

Presents a case study of three magnet schools in a large American city. Demonstrates how these schools were affected by political struggles. Traces the development of relationships between teachers and students, among the staff, and among students of different races. Employs an organizational analysis and looks at the schools from the adults' point of view.

Rossell, C. H. (1988). How effective are voluntary plans with magnet schools? Educational Evaluation and Policy Analysis, 10(4), 325-342.

Compares the desegregation effectiveness of voluntary plans with magnet schools to mandatory reassignment plans with magnet schools in a sample of 20 school districts. Finds that a magnet school plan based primarily on voluntary transfers produces greater long-term interracial exposure than a mandatory reassignment plan with magnet components. Speculates that this is due to the greater white flight from the mandatory plans.

d. SCHOOLS WITHIN SCHOOLS:

RAND Corporation. (1981). A study of alternatives in American education, Vol. 7: Conclusions and policy implications. Santa Monica, CA: Author. (ED 216 427)

Discusses the Rand study of alternatives in the curricula of public schools and cites specific school districts where alternatives have been introduced. Reviews the needs of different school populations and concludes that program size, the nature of the program, and experimenting with parental choice have little negative impact on a student's success in school. Notes that teacher perceptions of the alternatives affected student reading achievement. Encourages alternatives and suggests that steps be taken to promote teacher perceptions of cohesiveness, shared policy, and principal support.

Seldin, C. A. (1978). Schools within schools: An answer to the public school dilemma. New York: Blythe-Pennington.

Reviews research literature on alternative education, with an emphasis on schools within schools. Derives a list of elements characteristic to and useful for the implementation and maintenance of optional alternative programs. Examines the evolution of an open alternative in Boston's Parmenter Elementary School in light of this list. Establishes four primary factors for successful schools within schools programs: 1) all programs within a school must be viewed as legitimate educational environments; 2) the principal and faculty are prime facilitators of this perception; 3) a shared decision-making approach is appropriate to develop and operate an optional alternative; 4) administrators must be aware of the possibility and potential dangers of unintentional segregation by socioeconomic level, race, religion, etc. Makes recommendations for further research. Includes extensive bibliography.

e. TUITION TAX CREDITS AND VOUCHERS:

Doyle, D. P. (1983-84). Private interests and the public good. The College Board Review, 130, 6-11. (EJ 298 327)

Questions the implications of the use of tax credits and vouchers for the relationship between schooling and society, including the tension between professional and parent, the role and place of values in education, the extent to which private schools should receive government aid, and the extent to which such aid might lead to government control of private schools.

James, T., & Levin, H. M. (Eds.) (1983). Public dollars for private schools: The case of tuition tax credits. Philadelphia, PA: Temple University Press.

Describes both sides of the tuition tax credit debate. Discusses the nature of tuition tax credits, their cost, prime beneficiaries, and effects on public and private schools. Suggests alternative ways to increase educational choice.

Krashinsky, M. (1986). Why educational vouchers may be bad economics. Teachers College Record, 88(2), 139-167. (Includes response by E. G. West and rejoinder by Krashinsky). (EJ 296 093)

Examines arguments for and against educational vouchers by looking at underlying economic assumptions. Argues that externalities and transaction costs have often been ignored by voucher advocates.

Nathan, J. (1984). Free to teach: Achieving equity and excellence in schools. Minneapolis, MN: Winston Press.

Outlines problems faced by the public schools. Discusses the effectiveness of parent and student choice of schools and programs as a potential solution to these problems. Proposes in particular the use of a voucher system to make schools more responsive to students and their parents.

Wise, A. E., & Darling-Hammond, L. (1984). Education by voucher: Private choice and the public interest. Educational Theory, 34(1), 29-53. (Includes replies by R. J. Murnane and E. G. West.)

Evaluates the educational voucher system and how it may solve effectiveness and efficiency problems of the educational system through market accountability. Discusses educational goals and state and community roles in reaching these goals.

2. CLASS SIZE:

Anderson, L. W. (1987). The classroom environment study: Teaching for learning. Comparative Education Review, 31(1), 69-87.

Reports the results of the Classroom Environment Study (CES) of the effect of school and classrooms on student achievement. Identifies similarities and differences in teaching practices and the conditions of learning in nine countries on five continents. Identifies particular aspects of the classroom environment that influence student achievement and attitudes. Derives six generalizations from an analysis of the data: 1) within countries, teachers differ greatly in what they teach relative to what is tested; 2) teachers are inconsistent in the ways in which they behave from day to day; 3) the nature of classroom teaching is quite similar in all countries; 4) the history of the learner exerts a potent influence on student achievement and attitudes; 5) students' perceptions of their classroom and the instruction they receive influence their achievement and attitudes; 6) observed classroom activities and teacher behaviors tend to exert virtually no influence on student achievement and attitudes.

Bennett, S. (1987). New dimensions in research on class size and academic achievement. Madison, WI: National Center on Effective Secondary Schools. (ED 288 854)

Synthesizes research on the effect of class size on academic achievement. Asserts that although the influence of class size alone has been difficult to isolate, it is clear that it helps determine the frequency and quality of student-teacher interaction and therefore bears an indirect relationship to academic achievement. Offers these conclusions, among others: 1) reductions in class size to less than 20 students without changes in instructional methods cannot guarantee improved academic achievement; 2) no single class size is optimal for all grade levels and subjects; 3) smaller classes appear to result in greater achievement gains for students with lower academic ability and those who are economically or socially disadvantaged; 4) smaller classes result in higher teacher morale and reduced stress; 5) class size appears to have more influence on student attitudes, attention, interest, and motivation than on academic achievement.

Glass, G. V., Cahen, L. S., Smith, M. L., & Filby, N. N. (1982). Why are smaller classes better? In School class size: Research and policy (pp. 67-74). Beverly Hills, CA: Sage Publications. (ED 217 111)

Relates practical considerations of school class size to research findings which indicate class size is strongly related to academic achievement. Makes suggestions for achieving the positive effects of smaller class sizes through grouping arrangements.

Glass, G. V., & Smith, M. L. (1979). Meta-analysis of research on class size and achievement. Educational Evaluation and Policy Analysis, 1(1), 2-16.

Concludes that a direct, strong relationship exists between decreases in class size and increases in academic achievement. Includes a discussion of meta-analytic methods of integrating research findings. Presents a summary of a longer report by the same authors: "Meta-analysis of research on the relationship of class size and achievement," prepared for the Far West Laboratory for Educational Research and Development.

Klein, K. R. (1985). Practical applications of research: Class size. Phi Delta Kappan, 66, 578-580.

Offers a brief summary of central issues and findings in 1975-1985 class size research and cites practical means of achieving positive effects associated with smaller class size such as increased teacher-student contact. Cites the importance of integrating small-group instruction in traditional classroom settings and outlines specific grouping techniques.

LaFleur, C. D., Sumner, R. J., & Witton, E. (1975). Class size survey. AACRDE Report No. 4, Australian Committee on Research and Development in Education. Canberra: Australian Government Publishing Service.

Provides a critical review and extensive chronological listing of pre-1974 class size research. Cites inconsistent definitions and inadequacies in research design as major obstacles in determining the effect of class size on academic achievement.

McKenna, B. H. (1977). Some philosophical, organizational and definitional considerations. In Class size (Reference, and Resource Series). Washington, DC: National Education Association. (ED 154 471)

Provides an overview of philosophical, research, and practical issues relating to school class size. Discusses the role of staffing arrangements in determining pupil-teacher ratios, class size, and overall teacher load.

Robinson, G., & Wittebols, J. (1986). Class size research: A related cluster analysis for decision making. Arlington, VA: Educational Research Service. (ED 274 030)

Presents a cluster analysis of 100 studies completed between 1950 and 1986 of the effect of class size on academic achievement. Uses discrete clusters of factors including grade level, subject area, instructional methods and relevant achievement factors (academic ability, economic and cultural variables) that may interact with class size in influencing academic achievement. Finds that class size reductions are most effective in grades K-3 and have little impact unless combined with small group instructional techniques. Includes an analysis of the cost effects of class size reductions.

Ryan, D. W., & Greenfield, T. B. (Eds.). (1975). Review of class size research. In The class size question (pp. 170-231). Toronto: Ontario Institute for Studies in Education.

Reports findings of elementary and secondary research on class size and academic achievement prior to 1975. Includes tables identifying important factors in individual studies which contribute to lack of consistency in research results. Examines methodological problems present in the literature.

Slavin, R. E. (1984). Meta-analysis in education: How has it been used? Educational Researcher, 13, 6-15, 20-21, 25-26. (Includes reply by G. V. Glass et al. and rejoinder by Slavin.)

Critically examines the recent application of the meta-analytic method of performing quantitative syntheses of research studies in education. Concludes that meta-analysis may lead to over-simplification and misleading results unless carefully used in conjunction with traditional explanatory reviews. Includes a reply by developers of meta-analysis at the Far West Lab (San Francisco) and a rejoinder by Slavin.

Smith, W. L. et al. (1986). Class size and English instruction in the secondary school. Report of the NCTE Task Force on Study of Class Size and Workload in Secondary English Instruction. Urbana, IL: National Council of Teachers of English, and ERIC. (ED 268 533)

Provides a critical review of class size research. Highlights findings on the effects of class size and teacher workload on English instruction in secondary schools. Identifies specific types of studies needed to fill gaps in the current research picture. Contends that class size, when combined with mode of instruction, can have a significant influence on learning.

Tomlinson, T. M. (1989). Class size and public policy: Politics and panaceas. Educational Policy, 3(3), 261-273. (ED 292 216)

Reviews the issue of class size reduction; analyzes the evidence of research on the relationship between class size and educational improvement; cites findings supporting the view that the costs of class size reduction outweigh the benefits and that reducing class size to improve student achievement is inconsistent with the push to enhance teacher professionalism by placing greater demands on teachers. Includes a discussion of what teachers can do to manage large classes.

3. GOVERNANCE, ORGANIZATIONAL REFORM, AND RESTRUCTURING

a. GENERAL REFERENCES:

Bird, T., & Little, J. W. (1986). How schools organize the teaching profession. The Elementary School Journal, 86(4), 493-511.

Finds fault with federal and local attempts to improve and influence the teaching profession. Points out that federal and professional standards are fruitless or counterproductive in the absence of local organizations that can apply them in the classroom.

Clark, D. L., & McKibbin, S. (1982). From orthodoxy to pluralism: New views of school administration. Phi Delta Kappan, 63(10), 669-672. (EJ 264 267)

Presents a reader quiz on attitudes about school administration. Analyzes likely responses to the quiz and concludes that the assumption that schools are rational, bureaucratic organizations leads to rigidity and confusion because it does not accurately describe schools as they exist. Argues for pluralism in organizational views.

Clune, W. H., & Witte, J. F. (Eds.). (In press). Choice and control in American education, Vol. 1: The theory of choice and control in education. Philadelphia, PA: Falmer Press.

Discusses the structural environment of American education, the theories of control that can be applied to schools and school districts, claims concerning the consequences of increasing choice and decentralizing school decision-making, and the normative issues surrounding choice and control options. Attempts to sort out the pro and con arguments for choice and decentralization. Presents what is known empirically about the effects of such proposals both in education and in other organizational settings.

Clune, W. H., & Witte, J. F. (Eds.). (In press). Choice and control in American education, Vol. 2: The practice of choice, decentralization and school restructuring. Philadelphia, PA: Falmer Press.

Reviews six types of organizational change: school-based management, magnet school choice systems, democratic localism, teacher empowerment and professionalization, state differential treatment of schools, and curriculum controls. Raises questions for further research.

Cole, M., & Griffin, P. (Eds.). (1987). Contextual factors in education: Improving science and mathematical education for minorities and women. Madison, WI: Center for Education Research, University of Wisconsin. (ED 288 947)

Assumes that new funding will not be available for public education and that there exists a need for serious proposals for redirecting existing expenditures. Suggests that new media of communication offer a potential for institutional realignments that might yield solutions to current problems. Emphasizes ways that computers may enhance science and mathematics education for minorities and women and examines other contextual factors susceptible to change as well. Offers suggestions for further research.

Daft, R., & Becker, S. (1978). Innovation in organization: Innovation adoption in school organizations. New York: Elsevier.

Discusses the cause/effect relationship that leads to new innovations and matters that influence innovations in an organization. Proposes reasons why innovations occur and suggests that the key to innovation is incentive and the presence of a climate for innovative ideas. Concludes that proposed innovations are usually accepted and most innovations benefit college-bound students.

David, J. L., Purkey, S., & White, P. (1989). Restructuring in progress: Lessons from pioneering districts. Washington, DC: National Governors' Association, Center for Policy Research.

Reports on the efforts of four school districts that have begun to make substantial operational changes - in other words, to restructure. Analyzes common problems in approaching structural change and how these districts have overcome barriers to change. Makes recommendations to state and district leaders who want to tackle educational restructuring.

Firestone, W., & Corbett, H. D. (1987). Planned organizational change. In N. Boyan (Ed.), Handbook on research on educational administration (321-340). New York: Longman.

Examines the accumulated research knowledge about planned organizational change in schools, in particular, intentional efforts to modify some aspect of the organization or practice of schooling. Focuses on what has been learned about how to manage the change process. Reviews the research on how change happens. Includes sections on: 1) the history of planned organizational change research; 2) mandates, grants, and dissemination efforts; 3) leadership tasks that support planned change; and, 4) how to modify organizational cultures.

Fitzpatrick, K. & Charters, W. W. Jr. (1986). A study of staff development practices and organizational conditions related to instructional improvement in secondary schools. Eugene, OR: Center for Educational Policy and Management, College of Education, University of Oregon. (ED 266 558)

Investigates instructional leadership functions and school policy factors that affect the extent to which teachers implement instructional strategies presented in a research-based staff development program for secondary school mathematics teachers. Finds a positive relationship between the amount of support that teachers reported receiving for implementing new teaching strategies and the extent to which they employed the strategies. Reports a negative relationship between the teachers' perceptions of the instructional evaluation procedures employed by their

schools and their implementation of the strategies. Detects no relationship between workload assigned to the teachers and the extent of their implementation of specific teaching strategies.

Guthrie, J. W. (1980). Organizational scale and school success. In C.S. Benson, M. Kirst, S. Abramowitz, W. Hartman, & L. Stoll (Eds.), Education finance and organization research perspectives for the future: Program on educational policy and organization (pp. 119-134). Washington, DC: National Education Association. (ED 188 318)

Argues that the trend toward large schools fostered by the school consolidation movement has resulted in little or no cost savings or educational gains and damaged parent participation in their children's school and general public participation in school governance. Proposes a research agenda to explore economic, academic and political effects of school scale.

Lewis, A. C. (1989). Restructuring America's schools. Arlington, VA: American Association of School Administrators.

Surveys what "restructuring" means to local school leaders, prominent reformers, and state and national organization representatives. Analyzes questions of organizational reform, teacher empowerment, policymaking, and administrative leadership as they relate to radical change in the system of American education.

Talbert, J. E. (1980). School organizational and institutional change: Exchange and power in loosely coupled systems. Palo Alto, CA: Institute for Research on Education, Finance, and Governance, Stanford University. (ED 193 796)

Presents an exchange-theory view of school authority relations in order to identify patterns of coupling, or interdependencies, within school organizations. Suggests that there exists a gradual drift toward enhanced informal exchange and interdependence at the local school level and, by implication, tighter coupling of the educational administration and teaching subsystems.

Timar, T. (1989). The politics of school restructuring. Phi Delta Kappan, 71(4), 265-275.

Assesses the school restructuring movement, the Coalition of Essential Schools and its surrounding policy environment, and the politics of American education. Provides a conceptual framework for understanding the organizational manifestations of restructuring. Presents findings from case studies of restructuring in three school districts. Interprets these restructuring reforms in the context of the existing literature on public policy and on the politics of education.

Weick, K. (1976). Educational organizations as loosely coupled systems. Administrative Science Quarterly, 21(1), 1-19.

Presents a view of educational organizations as loosely coupled systems and proposes research priorities to guide future study of organizations within this conceptual framework.

b. INCREASED SCHOOL-SITE AUTONOMY:

Clune, W. H., & White, P. (1988). School based management: Institutional variation, implementation, and issues for further research. New Brunswick, NJ: Center for Policy Research in Education, Rutgers University. (ED 300 908)

Presents a synthesis of research on school effectiveness, school improvement, and staff development. Recommends that future research should be less general and try to identify effects of specific programs, educational content, and organizational structure on various sub-groups such as those at the classroom level. Concludes that to facilitate the quality of instructional communication, policy should seek to reduce disruptions and intrusions on the communicative environment (for example, by encouraging staff stability), increase school site autonomy, prepare teachers and administrators for active collaboration, reduce curricular fragmentation, and foster the development of educational communities such as neighborhood schools.

David, J. L. (1989). Synthesis of research on school-based management. Educational Leadership, 46(8), 45-53.

Presents research relevant to the topic of school-based management. Describes how school-based management works in theory and practice, and identifies the connections between changing management structures and achieving improvement goals. Highlights issues that research still needs to address.

Fullan, M. (1985). Change processes and strategies at the local level. The Elementary School Journal, 85(3), 391-421. (EJ 315 744)

Considers change processes at the school-building level in order to formulate a number of locally based strategies (at the school and district levels) to improve schools and classrooms. Suggests change strategy implications arising from the effective schools research.

Guthrie, J. W., & Kirst, M. W. (Eds.). (1984). Data-based accountability in education. Report from the PACE Project. Palo, Alto, CA: Policy Analysis for California Education. (ED 270 871)

Presents a collection of policy papers addressing various facets of measuring the effectiveness of California state educational reform efforts. Addresses issues of accountability, measures of merit and a proposal to reward merit schools, data collection for the California Basic Educational Data System, and the California "quality indicators" program. Provides insight into complex issues associated with measuring school performance and formulating policy on accountability in education.

Marburger, C. (1985). One school at a time: School-based management, a process of change. Washington, DC: National Committee for Citizens in Education. (ED 263 683)

Proposes an organizational approach to educational reform. Includes practical guidelines for establishing school-based management.

Purkey, S. C., & Smith, M. S. (1985). School reform: The district policy implications of the effective schools literature. Elementary School Journal, 85(3), 353-389.

Reviews findings of school effectiveness literature and suggests local strategies and policies to stimulate and facilitate school reform. Recommends formulation of a district policy aimed at promoting school-specific solutions to educational and organizational problems. Discusses secondary and elementary schools. Examines differences in elementary and secondary improvement processes.

Stevenson, R. B. (1987). Autonomy and support: The dual needs of urban high schools. Urban Education, 22(3), 366-386.

Suggests that improvement and change in urban high schools is facilitated by improvement in the school culture. Characterizes a healthy school culture as one comprising a sense of collegiality and community, a shared commitment to unambiguous goals and high expectations for students, and an orderly and disciplined environment. Concludes that problems to be solved should be articulated at the district level, but that individual high schools should have autonomy in solving the problems.

Wakefield, R. I. (1983). Shared governance: Active cooperation for a more effective education (2nd ed.). Salt Lake City, UT: Salt Lake City School District.

Defines shared governance as a system whereby parents actively participate in governing the schools. Presents a training manual created to assist district personnel in implementing the shared governance concept in Salt Lake City, Utah.

White, P. A. (1988). Resource materials on school based management. New Brunswick, NJ: Center for Policy Research in Education, Rutgers University. (ED 300 909)

Provides a list of resource people, including superintendents, principals, directors, researchers, and practitioners, skilled in school based management. Describes individual programs. Concludes with an annotated bibliography of resource materials on the topic.

Yin, R. K., & White, J. L. (1986). Managing for excellence in urban high schools: District and school roles. Washington, DC: Cosmos Corporation.

Discusses the findings of a three-year study designed to identify management practices that produce exemplary urban high schools. Qualifies results with the recognition that locating exemplary schools is difficult: only four of the 40 schools examined could be characterized as exemplary. Considers three themes in light of the empirical evidence: 1) school effectiveness theory as applied to high schools and not just elementary schools, 2) excellence theory as applied to schools and not just business firms, and 3) district-school co-management of school operations. Makes recommendations for further research.

c. INCREASED TEACHER DECISION-MAKING:

Bacharach, S. B., Bauer, S. C., & Shedd, J. B. (1986). The work environment and school reforms. Teachers College Record, 88(2), 241-256.

Analyzes how the structure and organization of relationships in public school systems allow individual teachers to perform effectively. Discusses responses from 1789 teachers to a nationwide survey. (EJ 346 373)

Bolin, F. S. (1989). Empowering leadership. Teachers College Record, 91(1), 81-96.

Discusses contemporary notions of teacher empowerment. Reviews the history of teacher professionalism. Identifies factors that impede teacher empowerment. Contrasts empowering leadership with oppressive leadership, and suggests ways that empowering leadership may be developed.

Bredeson, P. V. (1989). Redefining leadership and the roles of school principals: Responses to changes in the professional worklife of teachers. High School Journal, 73(1), 9-20.

Investigates the effects of teacher empowerment on the multiple roles of the school principal. Identifies nine factors important for successful teacher empowerment: 1) the use of the language of shared governance and empowerment, 2) a readiness for professional growth and empowerment, 3) the superintendent's leadership in empowerment, 4) time as a key resource for empowerment, 5) boundary spanning for school principals, 6) enhancement of teachers' and principals' professional image, 7) a voice for teachers, 8) shared professional thinking, and 9) dealing with power through empowerment.

Conley, S. C., & Bacharach, S. B. (1990). From school-site management to participatory school-site management. Phi Delta Kappan, 71(7), 539-544.

Maintains that for school-site management to succeed, it must be developed with the specific goal of creating a professional work environment for teachers. Identifies these attitudes concerning teacher professionalism as key to creating a participatory management structure: 1) the primary control of pedagogical knowledge should be left to teachers; 2) teaching activities are not routine; 3) the teacher's primary work activity is making decisions. Presents a set of strategic questions that must be answered in structuring new forms of participation.

Darling-Hammond, L. (1989). Accountability for professional practice. Teachers College Record, 91(1), 59-80.

Explores the contributions of professionalism to school accountability in the context of a new phenomenon in American education: the professional development school, designed to model state-of-the-art practice while simultaneously refining and spreading it. Identifies models of accountability employed in education. Suggests means for providing safeguards and a voice for clients and the public in the event that teaching becomes more professionalized.

Darling-Hammond, L., & Berry, B. (1988). The evolution of teacher policy. New Brunswick, NJ: Center for Policy Research in Education, Rutgers University; Santa Monica, CA: RAND Corporation. (ED 298 599)

Analyzes the historical basis of recent teacher reforms and the concepts of teaching that new policies fostering teacher professionalism embody. Examines trends in state teacher policies governing certification and compensation implemented between 1978 and 1986. Targets the long-standing tension between the view of teachers as semiskilled workers who simply implement standards hierarchically imposed and the vision of them as skilled professionals who apply specialized knowledge to meet the unique needs of each student.

Hanson, E. M. (1981). Organizational control in educational systems: A case study of governance in schools. In S. Bacharach (Ed.), Organizational behavior in schools and school districts (pp. 245-276). New York: Praeger. (ED 150 723)

Presents a conceptual model of school governance and decision-making linking multiple spheres of influence. Focuses on the interaction between administrators and teachers and the development of a school-specific organizational model that challenges conventional frameworks for interpreting and predicting behavior/events in educational organization. Employs concepts typically associated with management sectors outside the field of education.

Koppich, J. E., & Kerchner, C. T. (1990). Educational Policy Trust Agreements: Connecting labor relations and school reform. Berkeley, CA: Policy Analysis for California Education, School of Education, University of California.

Discusses the second year of California's Trust Agreement Project, employing a new form of labor accord called an Educational Policy Trust Agreement designed to enable teachers, as represented by their union, and school management to develop agreements on professional issues that fall outside the traditional scope of collective bargaining or that appear better negotiated in this new setting. Tests the proposition that labor relations and school reform can be linked effectively. Finds that Trust Agreements appear to be altering the ways in which decisions are made in project districts and that union and management are beginning to act as a team in their efforts to craft creative responses to significant educational challenges.

McDonnell, L. M. (1989). The dilemma of teacher policy. New Brunswick, NJ: Center for Policy Research in Education, Rutgers University; Santa Monica, CA: RAND Corporation.

Argues that teacher policies struggle with the need to accommodate two different and equally legitimate values - popular control and professionalism. Examines the relationship between norms of democratic control and professionalism in the design and implementation of policy, using recent teacher policies in five states as illustrative cases. Identifies ways that the two interests might be better accommodated in the future.

McDonnell, L. M., & Pascal, A. (1988). Teacher unions and educational reform. New Brunswick, NJ: Center for Policy Research in Education, Rutgers University; Santa Monica, CA: RAND Corporation. (ED 293 837)

Examines the role of organized teachers in educational reform efforts. Probes the extent to which teacher unions have attained more professional teaching conditions for their members

through collective bargaining. Considers the political response of teacher organizations to national, state, and local reform initiatives. Presents ways in which the interests and activities of teacher organizations are likely to shape successive generations of educational reform, particularly efforts to restructure the teaching profession.

McNeil, L. (1983). Defensive teaching and classroom control. In M. Apple & L. Weis (Eds.), Ideology and practice in schooling (pp. 114-142). Philadelphia, PA: Temple University Press. (ED 221 958)

Claims that many teachers maintain discipline by the ways they present course content such as simplifying content and reducing demands on students in return for classroom order and minimal student compliance on assignments. Reviews the literature on the social role of school curricula. Reports on interviews with teachers and observations of the educational program at four Wisconsin high schools. Concludes that the desire to control knowledge is as much a desire for classroom control as for selective distribution of information and that this finding is crucial for an understanding of the ways schools legitimate certain kinds of information and delegitimate others.

McNeil, L. (1987). School governance and teacher leadership. Paper presented at the annual meeting of the American Educational Research Association, Washington, DC.

Addresses the issue of teacher leadership and professionalism in relationship to problems inherent in teaching as it is customarily organized within the school. Describes case study data from a large urban district where teachers are increasingly viewed as workers, in a state where textbooks and curricula are prescribed at the state level, and in schools where only principals have authority over hiring and budget. Concludes that the remedy for powerlessness in teaching is not merely reform based on teacher leadership, autonomy, and authority that results in a sharing of power in the current organization of schools but a recognition of how teachers unite their personal and classroom knowledge and in turn link craft and students to the broader issues of how their school relates to the larger social order.

Ornstein, A. C. (1988). The changing status of the teaching profession. Urban Education, 23(3), 261-279.

Discusses seven recent trends that promote greater teacher professionalism: professional practice boards, teacher centers, mediated entry, staff development, researcher-teacher collaboration, merit pay, master teachers, and new alliances.

Popkewitz, T. S., & Lind, K. (1989). Teacher incentives as reforms: Teachers' work and the changing control mechanism in education. Teachers College Record, 90(4), 575-594.

Explores the assumptions, implications, and consequences of reform programs implemented in the 1980s, focusing particularly on the institutional conditions and power relations in which these programs were developed. Argues that while the reforms' rhetoric supports improvements in teachers' working conditions, the restructuring prompted by reform efforts in fact reduces teacher responsibility through standardization of conduct, increased bureaucracy, and greater monitoring.

Rutter, R. A. (1987). Facilitating teacher engagement. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin. (ED 303 438)

Identifies teacher engagement as critical for fostering student engagement. Examines these organizational features that are readily manipulable at the school site to increase teacher engagement: 1) orderly school environment, 2) a sense of community, 3) teacher input into decision-making, 4) encouragement of teaching innovation, and 5) manageable teaching assignments. Discusses specific administrative behavior that fosters teacher engagement.

4. SCHOOL CLIMATE

a. GENERAL REFERENCES:

Anderson, C. S. (1982). The search for school climate: A review of the research. Review of Educational Research, 52(3), 368-420.

Uses organizational theory taxonomy to organize over 200 references on the school climate literature and draw conclusions about common findings. Reviews the history of school climate research, noting the influence of a variety of theoretical models, topologies, and methodologies contributing to debate about school climate. Includes tables of summary data from major climate studies.

Anderson, C. S. (1985). The investigation of school climate. In G. R. Austen & H. Garber (Eds.), Research on exemplary schools (pp. 97-126). New York: Academic Press.

Discusses conceptual and methodological aspects of school climate research. Reviews studies using a variety of approaches to measurement of school climate, identifying specific areas of inadequacy in the current research picture.

Bryk, A., & Driscoll, M. W. (1988). The high school as community: Contextual influences and consequences for students and teachers. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin-Madison.

Uses High School and Beyond data to develop a measure of the communitarian character of schools. Examines the effects of selected contextual features on the prevalence of communal schools and the consequences of this organizational form on students and teachers. Identifies core concepts that comprise communal school organization. Finds that the incidence of communal organization is higher in Catholic and other private schools than in the public sector, that small schools are more likely than large ones to have communitarian characteristics, and that social class and ethnic diversity are not significantly related to the communal organization of a school.

Firestone, W. A., & Rosenblum, S. (1988). Building commitment in urban high schools. Educational Evaluation and Policy Analysis, 10(4), 285-299.

Presents a conceptual framework for understanding student and teacher commitment to schooling. Finds that: 1) Alienation and commitment are multidimensional: Teachers and students make a variety of commitments that affect the nature of their work; 2) teacher and student commitments are mutually reinforcing; 3) five school factors - relevance, respect,

support, expectations, and influence - can increase student and teacher commitments. Discusses the policy implications of these findings.

Gottfredson, G. D., & Gottfredson, D. C. (1987). Using organization development to improve school climate. Baltimore, MD: Center for Research on Elementary and Middle Schools, Johns Hopkins University. (ED 295 283)

Presents several principles for organization development approaches to improving school climate. Discusses a specific structure for facilitating school improvement, Program Development Evaluation. Illustrates the use of school climate assessments for school diagnosis and the evaluation of improvement programs. Suggests approaches to the special problem of school improvement in schools that need improvement the most but where intervention is most difficult.

Gottfredson, D. C., Hybl, L. G., Gottfredson, G. D., & Casteneda, R. P. (1986). School climate assessment instruments: A review. Baltimore, MD: Center for Social Organization of Schools, Johns Hopkins University. (ED 278 702)

Describes and compares 70 school climate assessment instruments used in 22 school improvement projects. Employs these criteria in the review of each instrument: the school characteristics assessed, the ease of use and utility of the information provided, and the reliability and validity of the various scales included in each assessment instrument.

Keefe, J. W. (1989). Assessing the environment of your school: The NASSP CASE model. NASSP Bulletin, 73(515), 35-43.

Identifies flaws in studies of school climate. Describes the development of NASSP's Comprehensive Assessment of School Environment (CASE) model that depicts all the various inputs and outputs of school environments. Emulates the spreadsheet planning programs now used by business and corporate executives.

Lee, V. E., & Bryk, A. S. (1989). A multilevel model of the social distribution of high school achievement. Sociology of Education, 62, 172-192.

Identifies some characteristics of secondary schools that encourage a high level of achievement and promote an equitable distribution of achievement across the diverse social class, racial/ethnic, and academic backgrounds of students. Employs hierarchical linear modeling techniques to investigate the effect of the normative environment and academic organization of high schools on four social distribution parameters related to mathematics achievement. Concludes that the academic organization of high schools has a significant impact on the social distribution of achievement within them. Finds that although a smaller gap between the achievement of minority and white students is associated with an orderly school climate, less differentiation by social class and academic background is associated with smaller school size, less variability in course taking in mathematics, and a fair and effective disciplinary climate.

Lipsitz, J. (1984). Successful schools for young adolescents. New Brunswick, NJ: Transaction Books.

Presents case studies of four successful middle schools. Identifies these characteristics, among others, of successful schools for young adolescents: 1) a willingness and ability to adapt all

school practices to the individual differences in intellectual, biological, and social maturation of their students, 2) a belief in positive school climate as a goal rather than a process toward a goal, 3) a clarity about the purposes of intermediate schooling and the students they teach, 4) principals who have a vision of what school should be for this age group, who see their major function to be instructional leadership, and who secure the autonomy of their schools in their districts, and 5) a lack of adult isolation.

Lyons, V. E., Jr., & Sheatheim, H. H. (1988). Comparing effective schools - What are the common components? NASSP Bulletin, 72(512), 64-67.

Assesses the school effectiveness of five high schools using these characteristics found to have a significant effect on student achievement at the elementary school level: 1) high expectations for student achievement, 2) strong administrative leadership, 3) a safe and orderly environment conducive to learning, 4) an emphasis on basic skills acquisition, and 5) frequent monitoring of student progress. Finds that attendance is most strongly correlated in a positive direction with a safe and orderly environment and high expectations, that only frequent monitoring yielded a high positive relationship to academic achievement, and that the correlations of characteristics with early termination (dropping out) were inconclusive. Concludes that the elementary school research base can be applied to the secondary level.

Pallas, A. M. (1988). School climate in American high schools. Teachers College Record, 89(4), 541-554.

Describes school climate in a representative sample of American high schools. Develops a variety of school climate measures and relates these measures to characteristics of schools and teachers. Maintains that the effective schools model, based mostly on research on urban elementary schools, does not apply well to secondary schools because many environmental features of high schools lie outside the schools' control. Calls into question the extent to which improving high school climate can be expected to improve student achievement.

Purkey, S. C., & Smith, M. S. (1983). Effective schools: A review. Elementary School Journal, 83(4), 427-452. (EJ 281 542)

Reviews literature on school effectiveness and challenges the assumption that school differences have little effect on student achievement. Presents a speculative portrait of an effective school, and proposes directions for future research.

Rutter, M., Maughan, B., Mortimore, P., Ouston, J., & Smith, A. (1979). Fifteen thousand hours: Secondary schools and their effects on children. **Cambridge, MA: Harvard University Press.**

Reports on a study of 12 London secondary schools. Concludes that schools have an important impact on children's development and that which school a child attends matters. Found these variables associated with good pupil behavior and high achievement: high standards of achievement and behavior set by the schools, teachers who provide good models of behavior, praise of students and encouragement of student responsibility, and well-conducted lessons. Found the following factors to be of little statistical significance: small school population, modern school facilities, small teacher-pupil ratio, continuity of individual teachers, and firm discipline in which unacceptable behaviors are severely punished.

Teddlie, C., Kirby, P. C., & Stringfield, S. (1989). Effective versus ineffective schools: Observable differences in the classroom. American Journal of Education, 97(3), 221-236.

Investigates differences at the classroom level in third grade in effective and ineffective schools, but findings may be of interest to secondary schools. Finds that teachers in more effective schools scored consistently higher on all identified dimensions of effective teaching presented by Rosenshine. Suggests that an astute, highly-visible administrator and clear academic focus facilitate effective teaching. Makes recommendations for further research.

Zirkel, P. A., & Greenwood, S. C. (1987). Effective schools and effective principals: Effective research? Teachers College Record, 89(2), 255-267.

Seeks to demonstrate that the prescriptive pronouncements for school improvement that are currently in vogue are not all clearly justified by the research on effective schools. Uses the strong principal as an example of this myopia relative to the earlier research.

b. STUDENT DISCIPLINE AND RESPONSIBILITY:

Buechler, M., McCarthy, M. M., & Dayton, J. (1989). The debate over corporal punishment. Policy Memo Series No. 5. Bloomington, IN: Consortium on Educational Policy Studies, School of Education, Indiana University.

Reviews the policy debate over the use of corporal punishment in the public schools. Discusses court challenges to the use of corporal punishment. Presents alternatives to corporal punishment. Concludes that a trend exists toward the abolition of corporal punishment in the public schools, partly because of a heightened concern over child abuse.

Gaddy, G. D. (1988). High school order and academic achievement. American Journal of Education, 496-518.

Identifies these limitations on the research relative to school order and academic achievement: Little of it directly addresses the relationship between the two; much of it focuses on elementary schools; much of it exhibits a low level of analysis. Reviews those studies that provide useful information on school order and achievement including Fifteen Thousand Hours and studies arising from the High School and Beyond project. Concludes that based on these studies, the relationship of school order and achievement is unclear. Recommends a more careful consideration of the nature of school order and its relationship to the broader concept of discipline as a starting point for new research.

Grant, G. (1981). The character of education and the education of character. Daedalus, 110(3), 135-149.

Explores the relationship between authority (the use of power to coordinate action) and the intellectual and moral character of secondary schools. Suggests the failure of American public schools results from increasing dependence upon a bureaucratic, legal-rational form of authority. Loss of traditional, community-based authority precludes the growth of schools capable of generating a strong sense of shared purpose.

Grossnickle, D. R., & Sesko, F. P. (1985). Promoting effective discipline in school and classroom: A practitioner's perspective. Reston, VA: National Association of Secondary School Principals. (ED 266 550)

Offers a practical guide to solving high school discipline problems and developing effective policies and procedures. Includes intervention techniques designed to help students develop self-discipline and promote a "no-nonsense", supportive school climate.

Moles, O. C. (Ed.). (1990). Student discipline strategies: Research and practice. Albany, NY: State University of New York Press.

Presents research reviews and model programs emphasizing the influence of the community environment of schools, the social organization of schools and classrooms, and the processes of staff-student interaction on the behavior of students in schools. Examines discipline strategies at multiple levels: in the classroom, in the school, and in the resources and opportunities of school-community relationships. Discusses strategies applicable to both elementary and secondary school situations.

Newmann, F. M. (1981). Reducing student alienation in high schools: Implications of theory. Harvard Educational Review, 51(4), 546-564. (EJ 254 662)

Develops six guidelines for reducing student alienation. Shows why current efforts in school reform have failed to provide a comprehensive solution to the problem.

Reitz, R. J., & Fink, A. H. (Eds.). (1984-1985). Discipline (Hot Topics Series No. 8). Bloomington, IN: Phi Delta Kappan.

Brings together research reports, policy statements, technical and practical guides to policy implementation, descriptions of model program elements, and examples of practice within the school and classroom relevant to the problem of discipline. Attempts to assist school administrators and teachers as they develop new perspectives and skills to deal with such sensitive issues as punishment, suspension, expulsion, vandalism, violence, and crime. Emphasizes court rulings and pertinent legislation. Focuses on practice-oriented research that may be helpful in establishing effective disciplinary and motivational practices in the classroom setting.

Render, G. F., Padilla, J. M., & Krank, H. M. (1989). Assertive discipline: A critical review and analysis. Teachers College Record, 90(4), 607-640.

Describes Lee and Marlene Canter's Assertive Discipline program for classroom management as a take-charge approach that sets limits on student behavior, provides negative consequences for inappropriate behavior, and provides positive reinforcement. Raises questions relevant to its use in the schools of a democratic society. Concludes that there is a dearth of investigation of this program despite its widespread use and that it promotes a dangerous obedience to authority. Includes a response by Lee Canter and a rejoinder by the authors.

Sacken, D. M. (1989). Due process and democracy: Participation in school disciplinary processes. Urban Education, 23(4), 323-347.

Maintains that imposed legalistic school disciplinary codes are ineffectual and undemocratic. Advocates that students and parents, as well as other building-level groups, should collectively and routinely legislate school disciplinary policy and monitor actual practice.

c. STUDENT ENGAGEMENT:

McCombs, B. L., & Whisler, J. S. (1989). The role of affective variables in autonomous learning. Educational Psychologist, 24(3), 277-306.

Describes a causal model based on the relationship between positive affect and autonomous learning. Concludes that the role of affective variables such as curiosity, anxiety, and fear in autonomous learning is to further motivate or demotivate students' inherent tendencies to learn and develop by helping confirm that personal needs and goals can or cannot be met. Suggests that a goal of instruction should be to provide students with reasons for learning that are consistent with their personal needs and goals. Outlines ways that teachers can help students become autonomous learners. Offers recommendations for future research.

Newmann, F. M. (in press). Student engagement in academic work: Expanding the perspective on secondary school effectiveness. In J. Bliss & W. Firestone (Eds.), Rethinking effective schools. New Brunswick, NJ: Rutgers University Press.

Seeks to tie student engagement to school effectiveness. Defines student engagement, explains its significance, and identifies factors that affect engagement. Concludes that educators can enhance student engagement in academic work by attention to building a sense of student membership in the school at large and by designing academic tasks to maximize extrinsic rewards, intrinsic interests, sense of ownership, authenticity, social support, and fun.

Newmann, F. M. (1989). Student engagement and high school reform. Educational Leadership, 46(5), 34-36.

Defines student engagement as participation, connection, attachment and integration in particular educational settings and tasks. Finds five factors essential for enhancing student engagement in school work: students' need for competence, extrinsic rewards, intrinsic interest, social support, and sense of ownership. Suggests that standardized tests and the practice exercises used to prepare for them can be expected to undermine the engagement of many students because they incorporate few of the factors known to motivate students. Concludes that educators should pay attention to the ways that conditions of schooling and strategies of reform can enhance or undermine student engagement in academic work.

Nystrand, M., & Gamoran, A. (in press). Instructional discourse, student engagement, and literature achievement. Research in the Teaching of English.

Identifies two types of engagement: procedural engagement, characterized by conformity to school procedures, and substantive engagement, a sustained commitment to an involvement with academic work. Maintains that substantive student engagement occurs most frequently in classes where writing, reading, and classroom talk are vehicles of active inquiry rather than recitation

and review. Finds that disengagement adversely affects achievement, that procedural engagement has an attenuated relationship to achievement, and that substantive engagement has a strong, positive effect on achievement. Offers explanations for these findings. Concludes that the study of literature is especially useful as a vehicle for tapping students' interests and questions and thus generating substantive engagement.

Nystrand, M., & Gamoran, A. (in press). Student engagement: When recitation becomes conversation. In H. Waxman & H. Walberg (Eds.), Contemporary research on teaching. Berkeley, CA: McCutchan.

Examines the nature of student engagement in the instructional activities of eighth- and ninth-grade English classes. Focuses on the pivotal role of the teacher and shows how students become most profitably engaged and learn most in classrooms characterized by extensive interaction between students and teacher. Identifies two types of engagement: procedural engagement, characterized by conformity to school procedures, and substantive engagement, a sustained commitment to and involvement with academic work. Finds the quality of instructional discourse to be an indicator of substantive student engagement. Outlines the potential of school writing for substantive engagement. Offers suggestions for improving classroom discourse and giving students "ownership" of their writing.

Smith, G. A. (1989). The media academy: Engaging students in meaningful work. Educational Leadership, 46(5), 38-39.

Describes the Media Academy, a school-within-a-school at Fremont High School in Oakland, California. Claims that the Media Academy, designed to prepare at-risk black and Hispanic students for occupations in the print and electronic media, succeeds in actively engaging students in their own learning. Points out that the program cultivates competence, provides extrinsic rewards, taps intrinsic interest, and offers social support and the experience of ownership of work to students.

Wehlage, G. G. (1989). Engagement, not remediation or higher standards. In J. Lakebrink (Ed.), Children at risk (pp. 57-73). Springfield, IL: Charles A. Thomas.

Addresses the problem of engaging at-risk youth in the work of school. Suggests that programs for all students, especially low achievers, need to link the world of action outside the school to the academic environment by providing an experiential curriculum and mode of learning. Discusses two programs, the Media Academy and Croom Vocational High School, that create this link.

5. SCHOOL IMPROVEMENT PROGRAMS:

Anderson, B., & Odden, A. (1986). State initiatives can foster school improvement. Phi Delta Kappan, 67(8), 578-581.

Discusses state policy initiatives that foster school improvement and describes components of effective improvement strategies operating at the school level. Reports findings of a study by the Education Commission of the States and concludes state-sponsored educational improvement programs can positively influence local school change. Notes that increased complexity of

secondary schools as compared to elementary schools requires a more intricate process operating within the improvement program.

Berman, P. (1984). Improving school improvement: A policy evaluation of the California School Improvement Program (Executive Summary and Recommendations). Berkeley, CA: Berman, Weiler, and Associates.

Evaluates the 1977 California School Improvement Program as requested by the California State legislature. Concludes that the program is: 1) successful in elementary schools but not in secondary schools, 2) dependent on teacher motivation to improve school performance, and, 3) not complementary in most districts. Suggests school improvement programs be implemented at the elementary level, abandoned in secondary schools, and strengthened as a district role.

Darling-Hammond, L., & Wise, A. E. (1985). Beyond standardization: State standards and school improvement. The Elementary School Journal, 85(3), 315-336. (EJ 315 741)

Focuses on how state policies affect the teacher-learner relationship in classrooms. Emphasizes standards-setting as implemented through testing mechanisms. Examines test-based standards as well as test-based instructional processes with respect to students. Considers test-based standards for professional entry and retention with respect to teachers.

Grobe, R. P., Andrews, J. V., Adkins, D. G., & Arrasmith, D. G. (1984). Developing a school improvement plan: Integrating a large assessment system with instruction. A paper presented at the annual meeting of the American Educational Research Association, New Orleans, Louisiana. (ED 254 953)

Describes the learning system in Dallas, Texas, in terms of a four-part model: planning, instruction, assessment, and accountability. Focuses on integrating a large assessment system with instruction. Provides guidelines for item formatting and testing. Includes test development activities for survey and classroom tests.

Hall, G. E., & Hord, S. M. (1987). Change in schools: Facilitating the process. Albany: SUNY Press.

Describes what happens to teachers and administrators who are experiencing change as they implement an innovation. Assesses their attitudes, feelings, and behaviors. Maintains that how teachers feel about change can influence whether change actually occurs in the classroom. Presents three instruments for diagnosing what happens to people who are in the process of changing. Incorporates these instruments in a Concerns Based Adoption Model.

Lieberman, A. (Ed.). (1986). Rethinking school improvement: Research, craft, and concept. New York: Teachers College Press.

Presents the views of 20 noted scholars on the need for school improvement. Includes expansions and refinements of old ideas and new suggestions for school reform.

Marsh, D. D., & Bowman, G. A. (1988). State-initiated top-down versus bottom-up reform in secondary school. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin-Madison. (ED 303 432)

Compares two approaches to educational reform in California: the top-down strategy whereby the state has mandated the content of the reform and has pushed and/or enticed districts or schools to implement this design and the bottom-up method, a process-oriented strategy that initiates a planning process at the district or, more typically, at the school level. Finds that top-down content-oriented strategies are effective for implementing comprehensive reforms, that bottom-up process-oriented reform strategies can be effective for implementing unique programs targeted on specific student populations, that bottom-up changes cannot easily be institutionalized within the regular program, that the top-down approach must include bottom-up participation to be effective, and that it is not clear that either the current version of top-down or bottom-up strategies can be effective for implementing the new curriculum focus which includes higher order thinking, problem-solving, and communication skills.

Odden, A., & Marsh, D. (1988). How comprehensive reform legislation can improve secondary schools. Phi Delta Kappan, 69(8), 593-598.

Surveys the effect of California's statewide school reform legislation, S.B. 813, on local schools. Finds that: 1) virtually all schools implemented key provisions of S.B. 813 in a manner consistent with state purposes; 2) education reform legislated at the state level can be an effective means of improving schools when it is woven into a cohesive strategy at the local level; 3) successful implementation of reforms at the local level depends upon district leadership, collegiality among teachers, a heightened concern for all students, participation of teachers and site administrators in designing the local implementation of reforms, and follow-up coaching and assistance in schools and classrooms; and 4) attention to the substance of curriculum and instruction and to the process of school change correlates with higher test scores and improved learning conditions for all students.

Presseisen, B. Z. (1985). Unlearned lessons: Current and past reforms for school improvement. Philadelphia, PA: Falmer Press.

Evaluates the significance of the reports on education of the 1980s and compares them with previous periods of educational reform. Draws lessons for the future of American education on the basis of historic conditions and with respect to findings in current educational research and practice.

Purkey, S. C., Rutter, R. A., & Newmann, F. M. (1986-87). United States high school improvement programs: A profile from the high school and beyond supplemental survey. Metropolitan Education, No. 3, 59-91.

Reports findings of an assessment of a school-based approach to educational reform, the high school improvement program (SIP). Finds an unmistakable trend toward school-based reform strategies but also finds little impact of SIPs on staff, students, or school organizational climate. Calls for additional research to determine whether SIPs can lead to fundamental reform or only cosmetic reform as suggested by data in the present study. Supports continued experimentation but cautions against acceptance of SIPs as a panacea.

C. CURRICULUM REMEDIES

1. COMMUNITY SERVICE AND EXPERIENTIAL LEARNING

Conrad, D., & Hedin, D. (1981). National assessment of experiential education: Summary and implications. Journal of Experiential Education, 4(2), 6-20. (EJ 260 255)

Summarizes the assessment of four types of experiential education programs (volunteer service, career internships, outdoor adventure, community study/political action) on the psychological, social, and intellectual development of over 1,000 secondary students participating in 27 programs in independent, public, and parochial schools across the country. Discusses implications revealed by findings.

Conrad, D., & Hedin, D. (1982). The impact of experiential education on adolescent development. In D. Conrad & D. Hedin (Eds.), Youth participation and experiential education (pp. 57-76). New York: Haworth Press.

Summarizes the findings of a national study of 27 varied programs and concludes that experience-based educational programs can have a significant positive impact on the social, psychological, and intellectual development of adolescents.

Conrad, D., & Hedin, D. (1989). High school community service: A review of research and programs. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin-Madison.

Reviews current policies and practices concerning school-based community service. Summarizes research findings on the impact of service. Outlines critical issues confronting educational researchers, policymakers, and practitioners.

Hamilton, S. F. (1980). Experiential learning programs for youth. American Journal of Education, 88(2), 179-214. (EJ 228 505)

Defines "experiential learning" and some of its properties, purposes, and forms. Proposes a framework for thinking about evaluating educational programs. Offers recommendations for future research to explore the value of experiential learning, guide program development, and increase knowledge about youth socialization and learning.

Hamilton, S. F. (1981). Adolescents in community settings. Theory and Research in Social Education, 9(2), 23-38. (EJ 252 886)

Discusses a study undertaken to evaluate the influence of two community learning programs on the adolescent participants. Addresses differences in staff roles in the programs, program characteristics, learning outcomes, and participant attitudes. Finds that, in general, youth liked the community programs and learned a great deal from participating in them.

Harrison, C. H. (1987). Student service. Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching.

Presents a follow-up to the new "Carnegie unit" proposed in the report, "High School," which suggested that high school students complete a service requirement as part of the curriculum. Examines several existing service programs, including purposes and requirements. Reports that a well-implemented school service program lets students see a connection between what they learn and how they live. Stresses that this kind of program must be well-planned, structured, carefully critiqued, and suggests methods for implementation. Includes student and administration viewpoints in case studies of schools with service programs.

Kendall, J. C., & Associates. (Eds.) (1990). Combining service and learning: A resource book for community and public service. (2 vols.) Raleigh, NC: National Society for Internships and Experiential Education.

Brings together the writings of many experts in the field of service-learning. Surveys in Volume I the principles, theories, rationales, research, institutional and public policy issues and guides, and the history and future of service-learning. Covers in Volume II practical issues and ideas for programs and courses that combine service and learning, as well as case studies of programs in diverse settings.

Luce, J., Anderson, J., Permaul, J., Shumer, R., Stanton, T., & Migliore, S. (Eds.) (1988). Service learning: An annotated bibliography linking public service with the curriculum. Raleigh, NC: National Society for Internships and Experiential Education.

Accompanies the National Society for Internships and Experiential Education's two-volume work on service-learning. Provides citations to literature on the role and rationale of service-learning, research in the field, implications for practice and relevant organizations.

Moore, D. (1981). Discovery of the pedagogy of experience. Harvard Educational Review, 51, 286-300. ((EJ 249 550)

Outlines a framework for analyzing the social organization of education in nonclassroom environments based on observations of students in an experiential learning program. Maintains that the process of education must be understood by the effect of the broader social context in which it occurs.

Newmann, F. M., & Rutter, R. A. (1986). A profile of high school community service programs. Educational Leadership, 43(4), 64-71.

Reports findings of a 1984 national survey of public and private high schools to determine the characteristics of community service programs. Factors examined include: student enrollment, ethnicity, academic credit hours spent by students in service and on homework assignments, etc. Reports that nearly 27% of schools offer community service programs but that this represents only 7% of the total student population.

Wehlage, G. G. (1989). Engagement, not remediation or higher standards. In J. Lakebrink (Ed.), Children at risk (pp. 57-73). Springfield, IL: Charles A. Thomas.

Addresses the problem of engaging at-risk youth in the work of school. Suggests that programs for all students, especially low achievers, need to link the world of action outside the school to the academic environment by providing an experiential curriculum and mode of learning. Discusses two programs, the Media Academy and Croom Vocational High School, that create this link.

2. COOPERATIVE LEARNING:

Cooperative learning. (1986). The Harvard Education Letter, 2(5), 4-6.

Offers an overview of major concepts and practical applications of cooperative learning strategies. Models proposed by Robert Slavin (Johns Hopkins University) and David and Roger Johnson (University of Minnesota) derive support from research studies which demonstrate that cooperative learning teams are more effective than competitive or wholly individualized arrangements in promoting academic achievement. Associated social benefits and improvements in school climate also noted.

Johnson, D. W., Johnson, R. T., & Holubec, E. J. (1984). Circles of learning: Cooperation in the classroom. Alexandria, VA: Association for Supervision and Curriculum Development. (ED 241 516)

Identifies the basic elements of a cooperative goal structure for the classroom as positive interdependence, individual accountability, face-to-face interaction, and cooperative skills. Details the role of the teacher in promoting cooperative learning. Emphasizes the need for cooperative learning to be coupled with the implementation of collaborative support groups among educators.

Johnson, D. W., & Johnson, R. (1985). The internal dynamics of cooperative learning groups. In R. E. Slavin et al., Learning to cooperate, cooperating to learn (pp. 103-124). New York: Plenum.

Reviews authors' research on the relative impact of cooperative, competitive, and individualistic learning experiences on variables including achievement and relationships among students. Major focus: "internal processes within cooperative learning groups that mediate or moderate relationship between cooperation and (1) productivity and (2) interpersonal attraction among students." Concludes processes that promote higher achievement and attraction among students may also promote outcomes such as higher-order thinking, increased time on task, beneficial interaction between students of different achievement levels, etc. Includes implications for classroom practices.

Johnson, D. W., Maruyama, G., Johnson, R., Nelson, D., & Skon, L. (1981). Effects of cooperative, competitive, and individualistic goal structures on achievement: A meta-analysis. Psychological Bulletin, 89(1), 47-62. (EJ 254 134)

Finds that meta-analyses indicated that cooperation is more effective than interpersonal and individual efforts in promoting achievement and productivity, that cooperation in intergroup

competition is superior to interpersonal and individual efforts in promoting achievement and productivity, and that interpersonal competition and individual efforts do not differ in effects on achievement and productivity.

Newmann, F. M., & Thompson, J. A. (1987). Effects of cooperative learning on achievement in secondary schools: A summary of research. Madison, WI: National Center on Effective Secondary Schools. (ED 288 853)

Presents a descriptive inventory of studies of cooperative learning research at the secondary level, a summary of results, and interpretive remarks about the significance and state of research. Focuses on the effects of cooperative learning on student achievement. Discusses five major techniques for encouraging cooperative learning: Student-Team-Achievement Divisions, Teams-Games-Tournaments, Jigsaw, Learning Together, and Group Investigation. Suggests that much more research is needed for grades 10-12.

Parker, R. E. (1985). Small group cooperative learning: Improving academic, social gains in the classroom. NASSP Bulletin, 69(479), 48-55.

Summarizes major concepts and supporting research literature. Cites benefits of cooperative learning as a means of enhancing academic achievement and attaining social goals. Discusses changes in the role of the teacher in classrooms structured for cooperative learning and addresses implementation issues.

Sharan, S. (1980). Cooperative learning in small groups: Recent methods and effects on achievement, attitudes, and ethnic relations. Review of Educational Research, 50, 241-271.

Analyzes and evaluates five methods for conducting cooperative small-group learning in the classroom: Aronson's Jigsaw Classroom, DeVries' Teams-Games-Tournaments (TGT), Slavin's Student Teams and Academic Divisions (STAD), the Johnsons' Cooperative Learning Approach, and the Sharans' Small-Group Teaching Method. Reviews experimental studies of these methods and cites differences in terms of academic achievement, student attitudes, and ethnic relations.

Slavin, R. E. (1983). When does cooperative learning increase student achievement? Psychology Bulletin, 94(3), 429-455.

Reviews research on achievement effects of cooperative learning methods in elementary and secondary schools. Indicates that only cooperative learning methods that provide group rewards based on group members' individual learning consistently increase student achievement over control methods. Concludes that group rewards and individual accountability are essential components in the effectiveness of cooperative learning methods.

Slavin, R. E. (1985). Cooperative learning. New York: Plenum.

Defines cooperative behavior in an educational setting. Reviews the major findings relevant to building the theoretical base from which research on practical cooperative learning methods derives its conceptual framework. Discusses cooperative learning methods, the relationship between cooperation and student achievement, intergroup relations, and the mainstreaming of academically handicapped students, and the other non-cognitive outcomes of cooperative

learning. Offers these conclusions: 1) The effects of cooperative learning on student achievement are positive. 2) Cooperative learning increases cross-ethnic friendship choices. 3) Cooperative learning methods result in greater acceptance of academically handicapped students. 4) Cooperative learning enhances self-esteem, increases student time-on-task, and improves the ability or predisposition to cooperate. Summarizes unresolved issues relative to cooperative learning.

Slavin, R. E. (1989\1990). Research on cooperative learning: Consensus and controversy. Educational Leadership, 47(4), 52-54.

Summarizes the main areas of consensus and controversy in research on cooperative learning. Finds these points of consensus: 1) cooperative methods can and usually do have a positive effect on achievement; 2) achievement effects depend on group goals and individual accountability; 3) cooperative learning enhances intergroup relations, social acceptance of academically handicapped students, self-esteem, a positive attitude toward school and the subject being studied, time-on-task, and attendance. Finds controversy over the specific conditions under which positive effects will be found, the effectiveness of cooperative learning at all grade levels, and the appropriateness of cooperative learning for higher-order conceptual learning.

3. CORE CURRICULUM:

Adler, M. J. (1982). The Paideia proposal: An educational manifesto. New York: Macmillan.

Presents a proposal to change the workings of public school education so that all students receive the same quantity and quality of education. Examines the student who possesses a lifelong learning habit and is not put into a learning track. Proposes setting up a curriculum with no electives except a foreign language. Describes the role of the teacher and the principal. Details the role of higher education and the future students of this curriculum.

Boyer, E. L. (1983). High school: A report on secondary education in America. New York: Harper and Row. (EJ 242 227)

Surveys the state of American secondary education under the auspices of the Carnegie Foundation for the Advancement of Teaching. Maintains that the success of secondary education and the nation's future are inextricably linked. Offers an agenda for action that includes clarification of goals, improvement of language skills, development of a core curriculum, training students for the world of work, requiring community service for all students, improvement of teachers' working conditions, enrichment of instruction with technology, and improvement of principal leadership training.

California State Board of Education. (1985). Model curriculum standards: Grades nine through twelve. Sacramento, CA: California State Department of Education. (ED 252 891)

Describes the 1983 core curriculum directive established by the California state legislature to serve as a guide for educators and policy makers in developing educational programs in local communities. Includes recommended approaches, instructional techniques, content, and reading lists in high school core subjects.

The College Board. (1983). Academic preparation for college: What students need to know and be able to do. New York: Author.

Presents a comprehensive description of the knowledge and skills needed by all college entrants. Describes what they need to learn in six Basic Academic Subjects that provide the specific knowledge and skills on which college-level study is based. Discusses what they need to learn in six Basic Academic Competencies that are general skills necessary for effective work in all subjects. Includes requirements for computer competency.

Goodlad, J. I. (1986). A new look at an old idea: Core curriculum. Educational Leadership, 44(4), 8-16. (EJ 347 084)

Reviews the history of the use of the concept "core curriculum" and its decline. Includes a discussion of educational ethics and excellence centering on the need to evaluate the drive toward a more academic curriculum and the effect it is having in pushing some students out of the system while developing excellence for a smaller group of students.

Hirsch, E. D., Jr. (1987). Cultural literacy: What every American needs to know. Boston: Houghton-Mifflin.

Defines cultural literacy as the possession of the basic shared knowledge needed to thrive in modern society. Stresses that literacy goes beyond mere word recognition and advocates the incorporation of a stronger base of factual information and traditional lore in the curriculum. Argues that cultural literacy is not inconsistent with cultural pluralism and diversity, and that it is the only avenue of opportunity for disadvantaged children. Includes lengthy appendix of names and terms.

Lazerson, M., McLaughlin, J. B., McPherson, B., & Bailey, S. K. (1985). An education of value: The purposes and practices of schools. New York: Cambridge University Press.

Suggests that the need for creative thinking about schooling is a continuing one. Examines the varied historical expectations Americans have held for the schools and how they have changed over time. Demonstrates that the shift in education from a 19th-century concern with preparing students for moral and political purposes to a 20th-century concern with preparing them for economic roles sharpened the conflict between equality and educational excellence. Considers the interaction between teaching and learning. Concludes with suggestions for reform including improvement in the training and recruitment of teachers and principals and the formation of coalitions to support public schools.

Newmann, F. M. (1988). Can depth replace coverage in the high school curriculum? Phi Delta Kappan, 69(5), 345-348.

Suggests that schools try to teach too much information and in so doing, foster the delusion that human beings are able to master everything worth knowing. Claims that this addiction to coverage hampers the development of fundamental understandings and complex, higher-order thinking. Offers depth, defined as "the sustained study of a given topic that leads students beyond superficial exposure to rich, complex understanding," as an alternative to coverage. Presents recommendations for overcoming resistance to the implementation of a curriculum centered on this notion of depth.

Roberts, A. D., & Cawelti, G. (1984). Redefining general education in the American high school. Washington, DC: Association for Supervision and Curriculum Development. (ED 248 604)

Reports on a project comprising a network of 17 schools selected to reconceptualize their existing general education program. Makes the following recommendation to other schools tackling a similar project: 1) seek consensus on the high school's mission; 2) set policy ensuring periodic redesign of the curriculum; 3) set curriculum balance as a top priority in curriculum development; 5) develop an organizational structure to ensure curriculum development; 6) provide sufficient time to design common learning for all students.

Westbury, I. (1988). How should we be judging the American high school? Journal of Curriculum Studies, 20(4), 291-315.

Compares the American high school with secondary education internationally and finds that at the point in time when Americans are looking to other nations for models of schooling, other nations see the unreformed U.S. school system as a model for their own systems. Critiques the ways in which various countries define "schooling" and how these definitions influence comparisons of education among nations. Maintains that Americans define "schooling" in an expansive and inclusive way because education is seen as fundamental to the American notion of citizenship which is that the right to education is one aspect of the right to participate in all institutional areas of the social order. Suggests that the debate over school reform should be regarded as a dialectic between elitism and egalitarianism, between stratification and incorporation. Contends that a core curriculum such as that proposed by E. D. Hirsch in Cultural Literacy is actually a radical program that challenges the stratification of American secondary education. Maintains that the traditions out of which Hirsch's work grows should be defining the future of our thinking about a curriculum for all.

4. DIRECT INSTRUCTION:

Good, T. L., & Grouws, D. A. (1979). The Missouri mathematics effectiveness project. Journal of Educational Psychology, 71, 355-382. (EJ 208 799)

Investigates the effectiveness of an experimental mathematics teaching program. Reveals that students of treatment teachers out-performed those of control teachers. Concludes that teachers and/or teaching methods exerted a significant influence on student progress in mathematics.

Rosenshine, B. V. (1979). Content, time and direct instruction. In P. Peterson & H. Walberg, Research on teaching, concepts, findings, and the implications (pp. 28-56). Berkeley, CA: McCutchan.

Reviews findings on student attention, the content that the student masters, and the settings that promote student attention.

Strother, D. B. (1984). Another look at Time-on-Task. Phi Delta Kappan, 65(10), 714-717.

Examines research on the issue of how much time students should be made to spend on learning. Concludes that time-on-task research has produced one basic insight: A student's active learning time is a strong determinant of his or her achievement. Discusses four methods

that teachers could use to increase active learning time. Outlines those factors which influence active learning time and the problems associated with increasing the time students spend in school.

5. INCREASED GRADUATION REQUIREMENTS:

Clune, W. H., with White, P., & Patterson, J. (1989). The implementation and effects of high school graduation requirements: First steps toward curricular reform. New Brunswick, NJ; Center for Policy Research in Education, Rutgers, The State University of New Jersey. (ED 304 756)

Reviews the implementation and effects of high school graduation requirements through the analysis of interview data gathered in six states, 24 districts, and 32 high schools. Finds that the courses added were overwhelmingly at the basic, general, or remedial level, suggesting that the reforms provoked a national experiment in math and science education for middle- and low-achieving students. Concludes that the requirements were a qualified success because they produced broad scale change of a type likely to make some difference in ultimate policy goals such as a more rigorous and uniform curriculum, higher achievement scores, and improved work skills. Suggests that pursuing the agenda of curricular reform to its desired ends will require major improvements in policy design and implementation such as more careful attention to the content of courses, targeting of courses to specific groups of students, and technical assistance to schools and teachers.

McDill, E. L., Natriello, G., & Pallas, A. M. (1985). Raising standards and retaining students: The impact of the reform recommendations on poten l dropouts (Report No. 358). Baltimore, MD: Center for Social Organization of Schools, The Johns Hopkins University. (ED 257 032)

Examines the potential influence of school reform policies on the high school dropout rate. Suggests that increased academic standards may encourage increases in student effort/involvement and lead to higher achievement levels but may also increase academic stratification within schools and cause more school failure. Offers organizational strategies to buffer the potentially negative consequences of raising academic standards for at-risk students.

National Commission on Excellence in Education. (1983). A nation at risk: The imperative for educational reform. Washington, DC: Department of Education. (ED 226 006)

Report of a 1981-1983 national commission charged with an assessment of the quality of U.S. education. Contains practical recommendations for educational improvement favoring a top-down approach to reform. Includes evaluation of educational reforms undertaken in the past 25 years. Concludes that the U.S. education system has fallen far behind that of other industrialized nations, placing the economy and society in serious jeopardy. Recommends 1) raising high school graduation requirements, 2) adopting more rigorous and quantifiable standards for academic performance and student conduct, 3) requiring more time be adopted to learning core subjects, and 4) improving teacher preparation and increasing the financial and professional status of teachers.

6. INTENSIFICATION OF ACADEMICS

a. INCLUSION OF DEPTH CONTENT IN COURSES:

Newmann, F. M. (1988). Can depth replace coverage in the high school curriculum? Phi Delta Kappan, 69(5), 345-348.

Suggests that schools try to teach too much information and in so doing, foster the delusion that human beings are able to master everything worth knowing. Claims that this addiction to coverage hampers the development of fundamental understandings and complex, higher-order thinking. Offers depth, defined as "the sustained study of a given topic that leads students beyond superficial exposure to rich, complex understanding," as an alternative to coverage. Presents recommendations for overcoming resistance to the implementation of a curriculum centered on this notion of depth.

Sizer, T. S. (1984). Horace's compromise: The dilemma of the American high school. Boston, MA: Houghton-Mifflin.

Presents the first report from a study co-sponsored by the National Association of Secondary School Principals and the National Association of Independent Schools. Reports on observations conducted during a two-year period in 80 schools in 15 states. Creates a series of descriptions of people, programs, and bureaucracy, contrasting good and bad learning situations. Finds that schools do not stimulate students to learn or force them to exhibit mastery of a subject. Recommends that schools keep the structure simple and flexible so that teachers and students can work in their own best way, that they focus on the use of the mind, and that they set correct incentives.

Smith, M. S. (1984). Educational improvements which make a difference: Thoughts about the recent national reports on education. Paper presented at a Science and Public Policy Seminar sponsored by the Federation of Behavioral, Psychological and Cognitive Sciences, Washington, DC.

Concludes that the recommendations of recent national commissions on educational reform may fail to accomplish stated goals and may have negative side effects, particularly for the financially disadvantaged. Criticizes a top-down approach to reform as a means of improving schools, favoring instead a focus on educational improvement at the school level. Cites specific strategies to positively influence the direction of future school change policy.

b. INTERNATIONAL BACCALAUREATE PROGRAM:

Fox, E. (1985). International schools and the International Baccalaureate. Harvard Educational Review, 55(1), 53-68.

Provides an historical account of the origin and development of the International Baccalaureate program. Notes growing interest among U.S. educators in IB as a means of strengthening academic curricula in high schools.

Renaud, G. (1974). Experimental period of the International Baccalaureate: Objectives and results. Experiments and Innovations in Education No. 14. Paris: The Unesco Press and the International Bureau of Education. (ED 112 732)

Presents the report of the Director of the International Baccalaureate Office in Geneva. Examines the historical development of the organization and the I.B. educational strategy. Highlights the initial project objectives which include the establishment of an internationally accredited diploma based on a core curriculum and examinations to facilitate scholastic mobility and assure standardization of secondary school preparation.

c. ADVANCED PLACEMENT PROGRAMS:

Casserly, P. L. (1986). Advanced placement revisited (College Board Report No. 86-6, ETS Research Report No. 86-35). New York: College Board Publications. (ED 278 719)

Provides an overview of the Advanced Placement Program. Includes findings of a study of the validity of AP examination grades as indicators of student preparation for advanced college course work and a report of AP student interviews about the program and subsequent transition to college.

Advanced Placement Program, The College Board. (1986). AP yearbook 1986. New York: Advanced Placement Program, The College Entrance Examination Board.

Provides comparative information on Advanced Placement Programs 1961-1986. Includes tables showing variation in access to AP Program, geographical distribution, participation by women and minorities, and a profile of 1986 participation in AP by subject area.

Williams, L. C., Gordon, C. H., & Austin, G. R. (1986). Review of the Advanced Placement Program in Anne Arundel County Public Schools. College Park, MD: Center for Educational Research and Development, University of Maryland.

Reviews the accomplishments of the Advanced Placement Program in the Anne Arundel County Public Schools (AACPS), one of the first programs to require all students enrolled in Advanced Placement (AP) courses to take AP examinations administered by the College Entrance Examination Board and one of the first to pay examination fees. Observes that after an initial increase in the number of examinations taken and a decrease in the passing rate, AACPS students became increasingly well-prepared for AP examinations. Recommends improvement in written information about the Advanced Placement program for parents and students and the computerization of this information as well as the development of a series of computerized AP program reports.

Willingham, W. W., & Morris, M. (1986). Four years later: A longitudinal study of Advanced Placement students in college (College Board Report No. 86-2, ETS Research Report No. 85-46). New York: College Board Publications. (ED 280 358)

Reports findings of a four-year study of the college careers of former AP students to gain understanding of Advanced Placement as an educational strategy. Findings reflect data on 4,814 AP and non-AP students.

7. WRITING ACROSS THE CURRICULUM

Applebee, A. N. (1981). Writing in the Secondary School. Urbana, IL: National Council of Teachers of English. (ED 197 347)

Details the instructional situations within which writing can serve as a tool for learning rather than as a means to display acquired knowledge. Discusses the three basic writing stages, i.e., prewriting, composing, and editing, offering suggestions for improvement in classroom attention to all three stages. Includes a bibliography of materials that present practical, classroom-oriented suggestions for incorporating writing into a variety of subject areas.

Applebee, A. N., Langer, J. A., & Mullis, I. V. S. (1986). The writing report card: Writing achievement in American schools. Princeton, NJ: National Assessment of Educational Progress, Educational Testing Service. (ED 273 994)

Reports the results of the 1984 national assessment of the writing achievement of American school children conducted by the National Assessment of Educational Progress. Finds that students at all grade levels are deficient in higher-order thinking skills. Recommends that students be given broad-based experiences in which reading and writing tasks are integrated into their work throughout the curriculum. Suggests that instruction in the writing process needs to focus on teaching students how to think more effectively as they write.

Fulwiler, T., & Young, A. (Eds). (1982). Language connections: Writing and reading across the curriculum. Urbana, IL: National Council of Teachers of English. (ED 218 667)

Asserts that language skills deserve attention from teachers in all academic disciplines and that teachers who recognize the role played by these skills can help students increase their learning ability, improve their communication skills, and enhance their cognitive and emotional growth. Presents a collection of essays designed to help educators understand the concepts and practices implied by the phrase "writing across the curriculum." Offers a mixture of theoretical ideas and practical classroom activities.

Langer, J. A., & Applebee, A. N. (1987). How writing shapes thinking. Urbana, IL: National Council of Teachers of English. (ED 286 205)

Examines writing assignments as part of the secondary school curriculum to determine their use in fostering learning and integrating new information with pervious knowledge and experience. Provides models of thoughtful and thought-provoking writing activities for use in a variety of subject-area classrooms. Finds that: 1) the more that the content is manipulated, the more likely it is to be remembered and understood; 2) the effects of writing tasks are greatest for the particular information focused upon during the writing; 3) writing tasks differ in the breadth of information drawn upon and in the depth of processing of that information that they invoke; 4) if content is familiar and relationships are well understood, writing may have no major effect at all. Offers a new approach to writing instruction based on carefully structured support as students undertake new and more difficult tasks in contrast to the standard approach which is based on providing information and evaluating what students have learned.

Nystrand, M. (1989). Sharing words: The effects of readers on developing writers. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin-Madison.

Contends that educators need to see writing not merely as cognitive, constructive processes but also as social, communicative processes between writers and readers. Examines the premises of and some of the research emanating from two schools of thought concerning the relationship of writers and readers, social constructionism and social interactionism, and evaluates their possibilities for understanding the effects of readers on writers' development. Presents methods for teachers to promote authentic, high-quality written discourse.

Swanson-Owens, D. (1986). Identifying natural sources of resistance: A case study of implementing writing across the curriculum. Research in the Teaching of English, 20(1), 69-97.

Provides a case study analysis of two high school teachers' responses to a particular set of writing tasks, and suggests an analytic tool that may be used to explore teachers' responses to change. Examines what teachers risk, what they can accommodate, and what strategies they employ in their efforts to translate theory into occasions of learning. Maintains that researchers need to use procedures that will help them to incorporate teachers' perspectives into their assessments of teachers' curriculum adoption behavior.

8. MAJOR CONTENT CHANGES IN SPECIFIC SUBJECT AREAS:

Applebee, A. N. (1981). Writing in the secondary school. Urbana, IL: National Council of Teachers of English. (ED 197 347)

Details the instructional situations within which writing can serve as a tool for learning rather than as a means to display acquired knowledge. Discusses the three basic writing stages, i.e., prewriting, composing, and editing, offering suggestions for improvement in classroom attention to all three stages. Includes a bibliography of materials that present practical, classroom-oriented suggestions for incorporating writing into a variety of subject areas.

Hirsch, E. D. (1987). Cultural literacy: What every American needs to know. Boston: Houghton Mifflin.

Defines cultural literacy as the possession of the basic shared knowledge needed to thrive in modern society. Stresses that literacy goes beyond mere word recognition and advocates the incorporation of a stronger base of factual information and traditional lore in the curriculum. Argues that cultural literacy is not inconsistent with cultural pluralism and diversity, and that it is the only avenue of opportunity for disadvantaged children. Includes lengthy appendix of names and terms.

Newmann, F. M. (1985). Educational reform and social studies: Implications of six reports. (Report prepared for the ERIC Clearinghouse for Social Studies/Social Education.) Boulder, CO: Social Science Education Consortium, Inc. (ED 252 489)

Compares the implications for reform contained in six national reports with past and present practices in the social studies. Notes the ways in which the reports fail to give useful guidance

to teachers. Stresses that these calls for quality in education can be used to support continuing work on issues critical for the social studies.

Shymansky, J. A., Kyle, W. C., Jr., & Alport, J. M. (1983). The effects of the new science curricula on student performance. Journal of Research in Science Teaching, 20, 387-404.

Summarizes the results of a quantitative synthesis of retrievable primary research studying the effects of new science curricula on student performance. Reveals a clear positive relationship between performance and new curricula with gains in analytic skills, process skills, related subject skills, general achievement and positive attitudes toward science.

Walker, D. F., & Schaffarzick, J. (1974). Comparing curricula. Review of Educational Research, 44(1), 83-111.

Reviews studies in curriculum development since Sputnik (1957) when funding began for promoting innovative curricula over traditional methods. Indicates that students' academic achievement reflects the policies of the curricula developers. Concludes that subject content desirable for students must be included in the curriculum as student learning is directly affected by content inclusion. Indicates that more research is necessary for creating measurement for outcomes in the curricula other than achievement.

D. STAFF DEVELOPMENT

1. GENERAL REFERENCES:

Fitzpatrick, K. & Charters, W. W. Jr. (1986). A study of staff development practices and organizational conditions related to instructional improvement in secondary schools. Eugene, OR: Center for Educational Policy and Management, College of Education, University of Oregon. (ED 266 558)

Investigates instructional leadership functions and school policy factors that affect the extent to which teachers implement instructional strategies presented in a research-based staff development program for secondary school mathematics teachers. Finds a positive relationship between the amount of support that teachers reported receiving for implementing new teaching strategies and the extent to which they employed the strategies. Reports a negative relationship between the teachers' perceptions of the instructional evaluation procedures employed by their schools and their implementation of the strategies. Detects no relationship between workload assigned to the teachers and the extent of their implementation of specific teaching strategies.

Lambert, L. (1989). The end of an era of staff development. Educational Leadership, 47(1), 78-83.

Reviews the history of staff development from the early 1970s. Claims that efforts at staff development were ineffectual because teachers assumed a passive role in the process. Outlines how future staff development programs should encourage teachers to participate in their own education, how districts can assist in programming, and what staff developers can do to facilitate change.

Little, J. W. (1989). District policy choices and teachers' professional development opportunities. Educational Evaluation and Policy Analysis, 11(2), 165-179.

Inventories formal staff development activity and costs in 30 California school districts. Discusses local organization and the policy stance taken by districts toward teachers and their professional development. Finds that the district, rather than the university or the larger professional community of teachers, serves as the dominant provider of teachers' professional development. Finds that expenditures reflect a conception of professional development based almost exclusively in skill acquisition, furthered by a ready marketplace of programs with predetermined content and format. Concludes that the responsibilities and rewards of professional development have devolved increasingly to a cadre of specialists and that relatively few teachers report working in schools in which they feel an obligation to contribute to one another's learning and find sufficient opportunity to do so.

Loucks-Horsley, S., Harding, C. K., Arbuckle, M. A., Murray, L. B., Dubea, C., & Williams, M. K. (1987). Continuing to learn: A guidebook for teacher development. Andover, MA: The Regional Laboratory for Educational Improvement of the Northeast & Islands.

Presents a sourcebook for staff development planners, implementors, and evaluators. Identifies the characteristics of good staff development programs. Explores the benefits and drawbacks of peer coaching, action research, and individually-guided professional development. Discusses teacher centers, partnerships, and institutes that provide ongoing support for teacher training programs. Offers resources for further exploration of staff development practices, structures, procedures, programs, and research.

2. INSERVICE: CONTENT-RELATED PROGRAMS:

Armento, B. J. (1986). Research on teaching social studies. In M. C. Wittrock (Ed.), Handbook of research on teaching (pp. 942-951). New York: Macmillan.

Surveys social studies research since 1975. Concludes that the empirical-analytical orientation continues to dominate the field. Notes that charges relative to the theoretical nature of much of the research on the teaching of social studies have formed a dominant theme in the critiques of the literature over the last 20 years. Identifies three ways to deal with research challenges: 1) to clarify conceptual problems, 2) to integrate theoretical principles, and 3) to establish a broader view of research on teaching social studies.

Begle, E. C. (1973). Some lessons learned by SMSG. Mathematics Teacher, 66, 207-214.

Summarizes of the curricular approach to mathematics education initiated in the late 1950s by the School Mathematics Study Group (SMSG). Provides an overview of program objectives and outcomes and reports findings of longitudinal and collateral research. Indicates that textbooks have a powerful influence on student learning: students using texts that concentrate on the structure of mathematics score better on the problem-solving tests than those using texts that focus on math skills. Concludes that grade location of specific topics in the curriculum should not be based on student age but on the overall structure of mathematics. Reports that SMSG was unsuccessful in its attempts to determine factors contributing to effective teaching.

Druva, C. A., & Anderson, R. D. (1983). Science teacher characteristics by teacher behaviors and by student outcome: A meta-analysis of research. Journal of Research in Science Teaching, 20, 467-479.

A meta-analysis of 65 studies of teachers and their students in K-12 science classes which addressed characteristics including IQ, gender, coursework, etc. as the independent factor and either (1) teaching behavior or (2) student outcome characteristics as the dependent variable.

3. INSERVICE: INSTRUCTIONAL TECHNIQUES:

Acheson, K., & Gall, M. (1987). Techniques in the clinical supervision of teachers: Preservice and inservice applications (2nd ed.). New York: Longman.

Emphasizes how to work with teachers in a supervisory capacity, helping them to improve their classroom teaching. Provides background for understanding techniques for conducting clinical conferences and collecting observational data. Presents case studies and answers questions frequently asked about clinical supervision.

Glickman, C. (1985). Supervision of instruction: A developmental approach. Boston: Allyn & Bacon.

Discusses a supervisory program for schools that emphasizes the teacher as an adult learner in the staff development process. Analyzes cognitive, conceptual, and personality development stages of practitioners. Targets graduate-level introductory supervision courses.

Harris, B. (1981). Improving staff performance through inservice education. Boston: Allyn & Bacon.

Provides a practical guide for those giving leadership to inservice experiences in schools and colleges. Includes case studies, examples of instruments, and training materials. Covers the development of training sessions through pre-planning and instructional design, and the organization and delivery of training experiences to staff. Offers individual and group approaches.

McLaughlin, M. W., & Marsh, D. D. (1978). Staff development and school change. Teachers College Record 80(1), 69-94.

Suggests that the failure of educational reform efforts is partly the result of inadequate in-service education for teachers. Discusses the findings and implications of the Rand Change Agent study on the nature and role of staff development programs. Identifies these factors as important for the successful implementation and continuation of a staff development project: 1) institutional motivation, 2) project implementation strategies, 3) institutional leadership, and 4) teacher characteristics.

4. PRINCIPAL LEADERSHIP TRAINING:

Anderson, C. S., & Nicholson, G. I. (1987). Instructional leadership - Can it be measured validly? Who performs what functions? NASSP Bulletin, 71(502), 28-40.

Describes a study that attempted to improve an existing instrument to measure behaviors and skills related to instructional leadership in secondary schools. Assesses its usefulness in differentiating schools and personnel in their pattern and level of instructional leadership. Finds that the instrument appears useful as a reliable and valid measure of the level of instructional leadership provided by principals, assistant principals, and chairpersons. Finds also that the instrument provides about the same data as teacher interviews but requires less time and is more easily quantified.

Bossert, S. T., Dwyer, D. C., Rowan, B., & Lee, G. V. (1982). The instructional management role of the principal. Educational Administration Quarterly, 18(3), 34-64. (EJ 268 214)

Reviews research on the principal's role as instructional manager. Considers four factors: 1) instructional organization, including time, class size and arrangement, and grouping, 2) school climate, 3) the principal's exercise of authority, power, and influence, and 4) the nonschool context, such as personal and district characteristics and the external social environment.

Cuban, L. (1988). The managerial imperative and the practice of leadership in schools. Albany, NY: SUNY Press. (ED 304 758)

Analyzes the dominant images, roles, and contexts within which teachers, principals, and superintendents have worked over the last century. Claims that management rather than leadership has dominated schools. Argues that reconstructing the sense of common purpose about the role of schooling that both teachers and administrators seek is an essential task in improving what happens in classrooms and schools.

Keefe, J. W., & Jenkins, J. M. (Eds.). (1984). Instructional leadership handbook. Reston, VA: National Association of Secondary School Principals. (ED 202 120)

Reviews the principal's instructional leadership role in four domains: formative, planning, implementation, and evaluation. Identifies four key traits associated with successful principals: 1) they hold high expectations for teachers and students; 2) they spend a major portion of their day working with teachers on improving the educational program; 3) they work at identifying and diagnosing instructional problems; 4) they become deeply involved in the school's culture to influence it in positive ways.

Kelley, E. A. (1980). Improving school climate: Leadership techniques for principals. Reston, VA: National Association of Secondary School Principals. (ED 202 120)

Offers techniques to school principals for evaluating and improving school climate. Concludes that high levels of productivity and satisfaction are goals for all persons who work and study in schools, but that the level of productivity and satisfaction attained by students must have priority.

Murphy, J. (1988). Methodological, measurement, and conceptual problems in the study of instructional leadership. Educational Evaluation and Policy Analysis, 10(2), 117-139.

Provides a comprehensive review of the research on instructional leadership. Finds many studies are handicapped by either relying on a job-analysis approach to defining instructional leadership, by failing to adequately consider both the micro and macro level contextual aspects of leadership, or by attributing causality to persons rather than organizational conditions.

Peterson, K. D. (1989). Secondary principals and instructional leadership: Complexities in a diverse role. Madison, WI: National Center on Effective Secondary Schools. (ED 305 718)

Explores the ways in which high school principals shape and reinforce high-quality teaching and learning. Describes obstacles to instructional leadership and how secondary school principals overcome these obstacles. Analyzes the properties of secondary schools that shape principals' work, reviews their daily tasks, and describes models of instructional leadership. Discusses how principals build school cultures and foster school improvement. Offers suggestions for strengthening the instructional leadership role of principals.

Pitner, N. J. (1982). Training of the school administrator. Eugene, OR: Center for Educational Policy and Management, University of Oregon. (ED 214 253)

Examines the state of the art of administrator preparation. Indicates that preservice training fails to prepare administrators to make quick decisions, communicate effectively, and deal with value-laden issues. Suggests that administrator preparation must include both cognitive and technical skills. Offers detailed suggestions for changes in the training of administrators.

Rossmiller, R. A. (1986). Some contemporary trends and their implications for the preparation of educational administrators. The University Council for Educational Administration Review, 27(1), 2-3.

Reviews the literature on school effectiveness. Discusses demographic trends and their implications for public education, particularly teacher training and working conditions as well as educational administration.

Sweeney, J. (1982). Research synthesis on effective school leadership. Educational Leadership, 39(5), 346-352.

Surveys research studies that link principal leadership with high achievement in schools. Finds that effective principals exhibit the following behavior: 1) emphasize achievement, 2) set instructional strategies, 3) provide an orderly atmosphere, 4) frequently evaluate student progress, 5) coordinate instructional programs, and 6) support teachers. Makes these recommendations for further research: 1) research should focus on the so-called average schools; 2) instructional leadership behaviors should be clearly defined; 3) the specific role played by the principal in evaluating or depressing staff expectations of students should be examined.

Zirkel, P. A., & Greenwood, S. C. (1987). Effective schools and effective principals: Effective research? Teachers College Record, 89(2), 255-267.

Seeks to demonstrate that the prescriptive pronouncements for school improvement that are currently in vogue are not all clearly justified by the research on effective schools. Uses the strong principal as an example of this myopia relative to the earlier research.

5. TEACHERS' EXPECTATIONS AND BEHAVIOR:

Ashton, P. T., & Webb, R. B. (1986). Making a difference: Teachers' sense of efficacy and student achievement. New York: Longman.

Examines how "status panic" - reductions in purchasing power and in the regard of society - has resulted in profound questions by teachers about their worth to society. Highlights those social organizations, leadership styles, and demands of the workplace that contribute to teachers' sense of powerlessness. Documents the lives of teachers high in feelings of personal power and self-efficacy and the organizational climate that fosters such feelings.

Brophy, J. E. (1983). Research on the self-fulfilling prophecy and teacher expectations. Journal of Educational Psychology, 75(5), 631-661. (EJ 292 503)

Reviews literature on self-fulfilling prophecy, focusing on its application to in-service teachers and their students. Concludes that a minority of teachers have major expectation effects on their students' achievement.

Brophy, J. E., & Good, T. L. (1986). Teacher behavior and student achievement. In M. C. Wittrock (Ed.), Handbook of research on teaching (3rd ed., pp. 328-375). New York: Macmillan. (ED 251 422)

Discusses the process-product research linking teacher behavior to student achievement. Stresses teacher behavior over other classroom process variables and stresses student achievement gain over personal, social, or moral development. Reviews progress prior to 1970, describes zeitgeist trends and methodological improvements, and discusses current trends and future directions.

Good, T. L. (1982). How teachers' expectations affect results. American Education, 18(10), 25-32. (EJ 273 938)

Discusses several research studies which show that what teachers expect of their pupils is usually what they get from them.

Stevenson, R. B. (1987). Staff development for effective secondary schools: A synthesis of research. Teaching and Teacher Education, 3(3), 233-248.

Maintains that research has synthesized some empirically-supported characteristics of secondary school effectiveness, but that the role of staff development in establishing such characteristics has not been examined. Uses a framework categorizing these characteristics within three critical dimensions of staff development to conduct a process of configurative mapping from the reported outcomes of staff development studies. Illuminates associations between staff development studies and effective school variables. Finds that two consistent patterns emerge

from which broad guidelines for the conduct of staff development are described. Discusses constraints identified by the literature in targeting staff development as a means of enhancing school effectiveness.

E. TESTING AND EVALUATION STRATEGIES

1. GENERAL REFERENCES:

Archbald, D., & Newmann, F. M. (1988). Beyond standardized testing: Assessing authentic achievement in the secondary school. Reston, VA: National Association of Secondary School Principals. (ED 301 587)

Offers a framework for thinking systematically and creatively about assessment of academic achievement. Reviews the uses and limitations of standardized tests of general achievement. Describes a variety of methods for approaching assessment.

Frederiksen, N. (1984). The real test bias: Influences of testing on teaching and learning. American Psychologist, 39(3), 192-202.

Explores the influence of tests on teaching and learning. Reviews research showing the long-term effects of adoption of multiple-choice testing procedures on student and teacher performance across a range of cognitive abilities. Since multiple-choice tests tend not to measure complex cognitive skills, suggests higher costs associated with tests in other formats might be justified for their value in encouraging instruction using higher level cognitive skills and reflecting a broader range of educational goals.

National Academy of Education Study Group. (1987). The nation's report card: Improving assessment of student achievement. Cambridge, MA: National Academy of Education. (ED 279 662)

Summarizes the recommendations of the Study Group on the National Assessment of Educational Progress (NAEP). Offers these suggestions, among others: 1) that achievement data be collected on each state and the District of Columbia and that state and local assessments be linked with NAEP, 2) that curriculum areas to be tested include higher order thinking skills, reading, writing and literacy, mathematics, science and technology, history, geography, and civics, and 3) that measurement means include computer assisted testing and scaling. Includes a supportive evaluation of NAEP conclusions by the National Academy of Education. Appends names of subgroup participants, the list of commissioned papers, a copy of Public Law 98-511 Section 405(e), a chronology of NAEP, and a description of the Elementary/Secondary Information Data System.

Natriello, G. (1987). Evaluation processes in schools and classrooms. Baltimore, MD: Center for Research on Elementary and Middle Schools. (ED 294 890)

Reviews literature relating to evaluation processes in schools and classrooms. Provides a conceptual framework for integrating research on evaluation processes in schools and classrooms. Examines commentary and research on elements of the evaluation process. Seeks to provide an understanding of how formal programs and policies affect evaluation processes.

Resnick, D. P., & Resnick, L. B. (1985). Standards, curriculum, and performance: A historical and comparative perspective. Educational Researcher, 14(4), 5-21.

Considers the influence of curriculum and assessment on educational standards within a historical and comparative perspective. Argues that higher standards can be reached, and outlines three potential steps to improvement: 1) upgrading the curriculum, 2) utilizing new forms of assessment, and 3) rethinking the concept of tracking to focus on high standards in the middle school.

Wiggins, G. (1988). Rational numbers: Toward grading and scoring that help rather than harm learning. American Educator, 20-25, 45-48.

Seeks to make grading a more central topic of teacher discourse. Suggests that teachers need to agree on standard grading criteria, that these criteria need to be expressed in descriptive terms clear to students, and that better assessments need to be designed for evoking and rewarding higher-order thinking. Recommends three strategies to enable faculties to apply standards fairly and consistently across classes: 1) on important tests, multiple readers should be required; 2) teachers should recognize that grading reliability can be greatly increased if the student submits two or more papers instead of just one; 3) teachers should work to formulate standards that they genuinely share.

2. EVALUATION OF STUDENT PERFORMANCE

a. CRITERION REFERENCE TESTING:

Carlson, S. B. (1985). Creative classroom testing. Princeton, N.J.: Educational Testing Service.

Introduces a variety of objective item types for constructing classroom tests suitable to content and behavioral objectives. Describes preparation of the items, with examples, and provides practice in writing them. Includes a selected bibliography and sample items prepared by high school instructors in English, science, and social studies.

Fielding, G. D., & Schalock, H. D. (1985). Integrating teaching and testing: A handbook for high school teachers. Monmouth, OR: Teaching Research Division, Oregon State System of Higher Education. (ED 257 821)

Investigates the relation between teaching and testing and demonstrates how they can promote student learning. Offers an overview of the kinds of tests addressed in the handbook: objective tests, essays, and observation on performance. Gives advice on matching teaching and testing to desired outcomes, assuring quality in tests, preparing, administering, and scoring tests, and using test information for various instruction-related purposes. Provides references and related resources.

Keefe, J. W. (Ed.) (1979). Competency tests and graduation requirements. Reston, VA: Author. (ED 126 160)

Discusses graduation requirements as a reflection of the curriculum and the relationship of competency testing to academic achievement.

b. MULTIPLE INDICATORS:

Alverno College Faculty. (1979). Assessment at Alverno College. Milwaukee, WI: Alverno College. (ED 177 928)

Reports on the development and use of assessment (rather than testing) for eliciting, diagnosing, and certifying student abilities as part of the outcome-centered approach to liberal education at this small, urban Catholic college for women. Defines assessment as a challenge to both the process and content of a student's learning resulting in a personal, specific, and integrated view of the student's developing competence. Includes a description of how faculty members design assessments and how assessors are recruited and trained.

Burgess, T., & Adams, E. (1980). Outcomes of education. New York: MacMillan.

Discusses how to record and assess the outcomes of education at the end of compulsory schooling. Examines the growing recognition that existing or proposed examinations at 16 plus years are limited in the ability to accurately test abilities, interests, and purposes. Offers a solution in: 1) the analysis of the present problem, 2) a discussion of evaluative measures used in Britain, and, 3) a proposal of a new system of statements for 16-year-olds, nationally validated, which will meet the requirements of public education.

Calfee, R. (1988). Indicators of literacy. Santa Monica, CA: RAND Corporation. (ED 297 302)

Maintains that students must achieve a level of "critical literacy" sufficient to employ language as a tool for problem-solving and communicating. Recommends that the present system of literacy indicators be augmented by the informed judgments of classroom teachers. Outlines the types of information to be provided by teachers. Identifies barriers to greater teacher involvement in literacy assessment.

Quinto, F., & McKenna, B. (1977). Alternatives to standardized testing. Washington, DC: National Education Association. (ED 190 591)

Investigates standardized test scores as a means of judging student ability, aptitude, and achievement. Expresses concern over reliance on test scores to formulate policies for tracking students in designated groups. Suggests five alternatives: 1) grading contracts with students, 2) interviews with students, 3) teacher-made tests, 4) objective-reference (criterion-referenced) tests, and 5) open admission (no tests at all).

c. STANDARDIZED TESTING:

Jaeger, R. M., & Title, C. K. (Eds.). (1980). Minimal competency achievement testing. Berkeley, CA: McCutchan.

Discusses reactions to the competency testing movement and the implications for students and teachers, case studies, instrument development, standards setting, and alternative forms of competency testing. Describes state-wide competency programs.

Lerner, B. (1987). A national census of educational quality--What is needed? NASSP Bulletin, 71(497), 42-60.

Proposes a monitoring of the overall quality of American education administered annually through a national census. Stresses that response time to problems could be shortened considerably and that a continuity of measurement would provide a more fair comparison of educational performance from year to year. Concludes that yearly national evaluations would better recognize, reward, and encourage students, teachers, and schools.

Nystrand, M., & Knapp, J. V. (1987). Review of selected national tests of writing and reading. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin-Madison.

Reviews 14 currently used high school standardized tests of writing and reading. Focuses on the psycholinguistic integrity and overall quality and usefulness of the tests for understanding the quality of high school English. Evaluates the general state of testing in writing and reading rather than evaluating any particular test or type. Finds that 1) many test items are ambiguous and unreliable because they provide inadequate context for testing the skills in question; 2) the use of passages and distractors that are contrived detracts from test reliability; 3) over half the items on some tests are flawed and/or misleadingly labeled. Presents recommendations for improving the quality of standardized writing and reading tests.

Postlethwaite, T. N. (1986). The use of standardized tests in secondary schools in four European countries. Madison, WI: Center on Effective Secondary Schools, University of Wisconsin. (ED 304 455)

Examines the use, type, and purpose of standardized testing in England, the Federal Republic of Germany, the Netherlands, and Sweden. Reports extensive standardized testing only in Sweden and suggests that the main reason for this is the lack of fit between standardized test and course content.

d. WRITING ASSESSMENT:

Diederich, P. B. (1974). Measuring growth in English. Urbana, IL: National Council of Teachers of English. (ED 097 702)

Offers an approach to the assessment of student writing in the form of test essays. Suggests that the most fair and accurate method is to introduce grading of unidentified essays on the same topic in a staff that has four or more teachers of English. Outlines a system for evaluation that eliminates more than 90 percent of daily grading and substitutes fewer and better measures at longer intervals of time. Includes appendices of sample tests, criteria for evaluation, and a glossary of terms.

Faigley, L. et al. (1985). Assessing writers' knowledge and processes of composition. Norwood, NJ: Ablex Publishing.

Examines writing skills as one of the chief focuses of educational programs. Offers strategies in writing assessment to promote the personal development, communication, and professionalism needed in writing for students of all ages. Discusses studies of writers' strategies for composing,

their knowledge of writing, and methodologies for studying both. Describes a method for assessing text-production skills through performance on controlled writing tasks called "Performative Assessment." Examines changes in composing processes by focusing on writers' awareness of their composing strategies. Makes practical suggestions for classroom use.

Greenberg, K. L., Wiener, H. S., & Donovan, R. A. (1986). Writing assessment: Issues and strategies. New York: Longman.

Discusses the assessment of written composition by the National Testing Network in Writing. Includes a collection of papers by major figures in the field, with an emphasis on theoretical perspectives. Addresses assignment-making, administration, scoring, reporting, and the history of the writing assessment movement. Attempts to raise and answer questions concerning writing tasks as related to curriculum and assessment continuity.

Hillocks, G., Jr. (1987). Synthesis of research on teaching writing. Educational Leadership, 44(8), 71-82.

Discusses research results on the writing composition process as related to classroom teaching. Considers types of knowledge writers need for effective writing that should provide a guide for developing more effective writing curricula. Examines research on the composing process, research in teaching composition, and the implications of their results for curricula.

Hogan, T., & Mishler, C. (1979). Judging the quality of students' writing: When and how. The Elementary School Journal, 79, 142-146. (EJ 201 810)

Provides a set of guidelines for dealing with the problem of assessing writing. Shows that it is possible to judge the quality of student writing reliably.

Nystrand, M., & Knapp, J. V. (1987). Review of selected national tests of writing and reading. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin-Madison.

Reviews 14 currently used high school standardized tests of writing and reading. Focuses on the psycholinguistic integrity and overall quality and usefulness of the tests for understanding the quality of high school English. Evaluates the general state of testing in writing and reading rather than evaluating any particular test or type. Finds that 1) many test items are ambiguous and unreliable because they provide inadequate context for testing the skills in question; 2) the use of passages and distractors that are contrived detracts from test reliability; 3) over half the items on some tests are flawed and/or misleadingly labeled. Presents recommendations for improving the quality of standardized writing and reading tests.

3. EVALUATION OF SCHOOL PROGRAMS:

Cooley, W. W., & Bickel, W. E. (1986). Decision-oriented educational research. Boston: Kluwer-Nijhoff.

Discusses a new concept in decision-oriented educational research and compares it to evaluation. Examines outcomes of case studies in the Pittsburgh, Pennsylvania public schools done in the past five years. Includes a type of operations research that involves continuous data collection, analysis, and practical feedback to policymakers. Targets educational decision-makers searching for methods to make educational research more relevant and valid.

Gottfredson, D. C., Hybl, L. G., Gottfredson, G. D., & Casteneda, R. P. (1986). School climate assessment instruments: A review. Baltimore, MD: Center or Social Organization of Schools, Johns Hopkins University. (ED 278 702)

Describes and compares 70 school climate assessment instruments used in 22 school improvement projects. Employs these criteria in the review of each instrument: the school characteristics assessed, the ease of use and utility of the information provided, and the reliability and validity of the various scales included in each assessment instrument.

Lazarus, M. (1982). Evaluating educational programs. Arlington, VA: American Association of School Administrators. (ED 226 414)

Provides guidelines for school administrators on evaluating schools and school programs, based on a poll of administrators and consultants. Discusses the purpose of evaluation, especially school improvement, and presents a list of evaluation standards. Outlines steps in evaluation planning; considers statistical evaluation; suggests how to choose tests appropriate for the evaluation purposes; addresses test administration; discusses the interpretation of test scores; summarizes arguments concerning minimum competence testing; describes new evaluation methods that eschew tests, and relates evaluation to current technological trends and school improvement and accreditation. Includes an appendix with sample evaluation policies and a glossary of 68 evaluation-related terms.

Madaus, G. F., Airasian, P. W., & Kellaghan, T. (1980). Strategies and analytic procedures in investigating school effectiveness. In School effectiveness: A reassessment of the evidence (pp. 111-171). New York: McGraw-Hill.

Questions school effectiveness and the means of evaluating effectiveness. Discusses the absolute effect of schooling and the relative effect of varying quantities of a given school resource. Describes three different strategies for examining school and program effectiveness, including case studies. Shows that as the research strategy adopted makes accommodations to the realities of the situation, the analytic problems associated with that strategy multiply.

Oakes, J. (1989). What educational indicators? The case for assessing the school context. Educational Evaluation and Policy Analysis, 11(2), 181-199.

Argues that valid and useful indicator systems are those that include assessments of school context as well as of student outcomes. Suggests that context indicators can be used to monitor schooling resources and processes, that they may help forestall educators' tendency to narrow their programs in order to "look good" on limited outcome measures, and that they can provide

information about the context in which particular outcomes are achieved. Presents three general constructs that can serve as grounding for developing school context indicators: access to knowledge, press for achievement, and professional teaching conditions.

III. NATIONAL CENTER ON EFFECTIVE SECONDARY SCHOOLS PROJECTS

A. ADOLESCENCE PROJECT

1. GENERAL REFERENCES

Becker, H. J. (1987). Addressing the needs of different groups of early adolescents. Baltimore, MD: Center for Research on Elementary and Middle Schools. (ED 291 506)

Addresses the issue of how different school organizational patterns affect the academic learning of students of different backgrounds and abilities. Examines how instructional specialization, between-class ability grouping, within-class ability grouping, and grade span affect the achievement of students from low to high SES backgrounds. Finds that elementary school settings benefit students from low social backgrounds, as does having instruction provided by a limited number of teachers. Shows benefits of between-class ability grouping for high social background students in middle schools, and benefits of within-class ability grouping in elementary schools for low background students in reading.

Hanson, S. L., & Ginsburg, A. L. (1988). Gaining ground: Values and high school success. American Educational Research Journal, 25(3), 334-365.

Examines the relationship between a wide range of values that stress the notion of responsibility and high school students' achievement test scores, grades, discipline problems, and dropout status, using High School and Beyond data. Investigates the extent to which students' behaviors outside school mediate the relationship between values and high school outcomes. Finds values to have both direct effects on school outcomes and indirect effects through out-of-school behaviors. Concludes that the effect of values as a whole is consistently larger than the effect of socioeconomic status when predicting both level of student performance and changes in student performance.

Steinberg, L., Brown, B. B., Cider, M., Kaczmarek, N., & Lazzaro, C. (1988). Noninstructional influences on high school student achievement: The contributions of parents, peers, extracurricular activities, and part-time work. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin-Madison. (ED 307 509)

Reviews and critiques the literature on experiences in four areas outside the classroom - the family, the peer group, the extracurricular setting, and the adolescent work place - that may affect student achievement during the high school years. Concludes that studies of noninstructional influences on high school achievement are severely limited by methodological shortcomings and conceptual myopia.

2. ADOLESCENT DEVELOPMENT

a. PEER INFLUENCES:

Biddle, B. J., Bank, B. J., & Marlin, M. M. (1980). Parental and peer influence on adolescents. Social Forces, 58(4), 1057-1079.

Examines the relative impact of parents and peers on adolescent behavior. Suggests that parents and peers influence adolescents through "expression of normative standards or the modeling of behaviors," that adolescent response to influence may be direct or through internalization of norms or preferences for conduct, and that the influence varies according to the type of behavior (including specific findings in academic achievement and drinking behavior). Results indicate that peer behaviors have greater impact than parental behaviors, while parental norms are more likely to affect the adolescent than peer norms.

Brown, B. B. (1989). Can Nerds and Druggies be chums? Mapping social distance in adolescent peer groups. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin-Madison.

Reports research in progress on mapping the social distance among adolescent peer groups. Finds that students show consensus on the status ordering of peer groups and that norms differ sharply among crowds with little social distance between them in the hierarchy developed by the students. Finds also that students tend to draw their close friendships disproportionately from their own crowd and, to a lesser extent, from crowd neighbors in the status hierarchy, yet some close status neighbors ignore each other in their selection of close friends, and other groups are more likely to reach to distant crowds than to status neighbors for friends. Suggests that the conceptual scheme developed for the study is too simplistic and that rather than being competing bases of status, adolescent and adult values are complementary dimensions on which adolescent crowds are organized.

Brown, B. B. (1989). The role of the peer group in adolescents' adjustment to secondary school. In T. Berndt & G. Ladd (Eds.), Peer relationships in child development (pp. 188-215). New York: Wiley.

Attempts to clarify the conceptualization of adolescent peer groups. Discusses the emergence and metamorphosis of peer groups across adolescence. Assesses the influence of peer groups on academic performance, pointing out research flaws in studies of this relationship. Finds that research has consistently reported that parents wield more influence than peers with regard to adolescent academic aspirations. Offers considerations for future research.

Brown, B. B., Lohr, M. J., & Trujillo, C. (1990). Multiple crowds and multiple lifestyles: Adolescents' perceptions of peer group characteristics. In R. E. Muuss (Ed.), Adolescent behavior and society: A book of readings (pp. 30-36). New York: Random House.

Analyzes the degree of consensus and differentiation apparent in teenagers' descriptions of various peer groups. Demonstrates that adolescents perceive their social world as comprised of a diverse array of peer groups with distinctive, well-differentiated life styles. Finds that although consensus was not overwhelming, crowd types were clearly differentiated, even in early

adolescence, and their images did not change significantly across the grade levels in the teenage sample. Refutes the *notion of a monolithic youth culture.*

Cohen, J. (1983). Peer influence on college aspirations with initial aspirations controlled. American Sociological Review, 48(5), 728-734.

Concludes previous estimates of high school peer influence on college aspirations have been seriously inflated. Ascribes inaccuracy of these research findings to the use of peer similarity as an indicator of peer influence while failing to control for the effect of friendship on similarity. Finds that the relationship between peer influence and college aspirations is weak when this control is incorporated.

Davies, M., & Kandel, D. B. (1981). Parental and peer influence on adolescents' educational plans: Some further evidence. American Journal of Sociology, 87(2), 363-387.

Examines the question of measurement of interpersonal influence on adolescents. Claims that perceptual measures inflate estimates of interpersonal influence by reflecting not only attributes of the person being perceived but also attributes of the perceiver. Indicates that parental influence on adolescent aspirations is stronger than peer influence - a factor which does not decrease during the period of adolescence. Finds that reciprocal influence occurs among peers with peer influences stronger among girls than boys.

Eckert, P. (1989). Jocks and Burnouts: Social categories and identity in the high school. **New York: Teachers College Press.**

Describes the role of the Jock and Burnout categories in the reproduction of adult social class in five suburban Detroit high schools. Perceives the Jock and Burnout categories as the stable and conservative foundations of adolescent society. Contends that although the majority of high school students are not members of one category or the other, an important part of most adolescents' social identity is dominated by the opposition between the two categories. Recognizes independent factors as well that may lead to individual affiliation. Illustrates how high school organization reinforces this polarization.

Epstein, J. L. (1983). The influence of friends on achievement and affective outcomes. In J. L. Epstein & N. Karweit (Eds.), Friends in school: Patterns of selection and influence in secondary schools **(pp. 177-200). New York: Academic Press.**

Describes a longitudinal study of the influence of friends on a variety of educational outcomes in high schools. Examines the effects of early patterns of friend selection (initial similarity versus difference between students) and the influence of differently structured friendship groups (unreciprocated, reciprocated, stable) on student achievement. Suggests that selection and influence are linked and that selection of friends has an apparent impact on the nature and extent of influence, while continued selection determines how patterns of influence persist.

Ide, J. K., Parkerson, J., Haertel, G. D., & Walberg, H. J. (1981). Peer group influence on educational outcomes: A quantitative synthesis. Journal of Educational Psychology, 73(4), 472-484.

Presents a quantitative synthesis of ten studies of elementary and secondary school peer group influence on educational outcomes (standardized achievement tests, course grades, educational

aspirations, and occupational aspirations). Finds that peer influence is a small but consistent correlate of educational outcomes and that the strength of the peer influence-education outcome relationship was significantly higher in urban settings and in settings where peer influence was determined on the basis of individual report of the aspirations or achievement levels of best friends.

Natriello, G., & McDill, E. L. (1986). Performance standards, student effort on homework, and academic achievement. Sociology of Education, 59(1), 18-31.

Examines the effects of teacher, parent, and peer performance standards on student effort and achievement while controlling for the effects of student background factors. Shows positive effects of performance standards on student effort as indicated by time spent on homework. Indicates mixed results of the effects of performance standards on student achievement: teacher and peer standards have small positive effects, whereas parent standards show greater negative effects. Offers methodological suggestions for future studies.

b. EXTRACURRICULAR INFLUENCES:

Biernat, N. A., & Klesse, E. J. (1989). The third curriculum: Student activities. Reston, VA: National Association of Secondary School Principals.

Defines "third curriculum" as student activities that represent a wide variety of school-sponsored teams, clubs, and organizations. Maintains that it is in these activities that students learn most of the carry-over skills for adult life, including lessons in leadership, followership, character, communications, teamwork, decision-making, self-worth, and individual potential. Surveys research literature on the third curriculum. Offers strategies for administrators to use in assisting students meet their individual and student group goals through participation in extracurricular activities.

Otto, L. B. (1982). Extracurricular activities. In H. J. Walberg (Ed.), Improving educational standards and productivity (pp. 217-233). Berkeley, CA: McCutchan.

Reviews studies of the relationship between participation in extracurricular activities (ECA) and academic performance. Reports inconclusive findings that may vary according to student characteristics, activity, and the extent of involvement. Suggests that the extent of participation in selected ECAs is positively associated with the level of educational aspiration, with findings holding across gender and racial lines. States that some evidence indicates that ECA participation is related to higher personal adjustment and also to effective adult socializing patterns later in life.

Waxman, H. C., & Sulton, L. D. (1984). Evaluating effects of nonclass experiences on students' educational aspirations and academic achievement. Psychological Reports, 54(7), 619-622.

Investigates the extent to which high school student participation in extracurricular activities affects post-secondary aspirations and current academic achievement. Indicates that such activities have positive effects on educational aspirations, but that the extent of participation in non-class activities negatively affects academic achievement. Suggests that a lack of

differentiation of effects of educational aspirations and academic achievement may account for contradictory and inconclusive results shown in previous studies.

c. FAMILY INFLUENCES:

Baker, D. P., & Stevenson, D. L. (1986). Mothers' strategies for children's achievement: Managing the transition to high school. Sociology of Education, 59(3), 156-166. **(EJ 340 568)**

Presents the results of an exploratory study of 41 mothers' strategies for managing the education of their beginning high school children. Finds an association between a family's socioeconomic status and the mother's academic strategies, thus indicating one way in which family background translates into educational achievement.

Epstein, J. L. (1985). Home and school connections in schools for the future: Implications of research on parent involvement. Peabody Journal of Education, 62, 18-41. **(EJ 328 877)**

Summarizes research regarding parents' involvement in their child's education. Discusses parent involvement practices that may be developed when home and school computers are added as resources.

Keith, T. Z., Reimers, T. M., Fehrmann, P. G., Pottebaum, S. M., & Aubey, L. W. (1986). Parental involvement, homework, and tv time: Direct and indirect effects on high school achievement. Journal of Educational Psychology, 78, 373-380. **(EJ 342 042)**

Employs a set of High School and Beyond data to study the effect of three variables on academic achievement. Finds that homework has a positive effect, TV a negative, and parental involvement no direct effect on seniors' achievement scores, but they influence the amount of time that students spend on homework.

Milne, A. M., Myers, D. E., Rosenthal, A. S., & Ginsburg, A. (1986). Single parents, working mothers, and the educational achievement of school children. Sociology of Education, 59, 125-139. **(EJ 340 565)**

Presents new research which takes advantage of two nationally representative data bases. Finds that mother's employment and living in a one-parent family can have negative effects on school achievement, but that these effects differ by age, race, and family structure. Points out the importance of mediating variables such as income and time use.

Spence, J. T. (Ed.). (1984). Achievement and achievement motives. **San Francisco: W. H. Freeman.**

Presents information about achievement and achievement motivation over the past few decades from both a sociological and psychological perspective.

Steinberg, L., Elmen, J. D., & Mounts N. S. (1989). Authoritative parenting, psychosocial maturity, and academic success among adolescents. Child Development, 60(6), 1424-1436.

Explores the relation over time among three aspects of authoritative parenting - acceptance, psychological autonomy, and behavioral control - and school achievement in a sample of 120 10- through 16-year-olds. Finds that: 1) authoritative parenting facilitates adolescents' academic success; 2) each component of authoritativeness makes an independent contribution to achievement; 3) the positive impact of authoritative parenting on achievement is mediated, at least in part, through the effects of authoritativeness on the development of a healthy sense of autonomy and a healthy psychological orientation toward work. Concludes that adolescents who describe their parents as treating them warmly, democratically, and firmly are more likely than their peers to develop positive attitudes toward, and beliefs about, their achievement, and as a consequence, are more likely to do better in school.

Steinberg, L., Mounts, N. S., Lamborn, S. D., & Dornbusch, S. M. (1990). Authoritative parenting and adolescent adjustment across varied ecological niches. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin-Madison.

Examines whether the widely reported positive relation between "authoritative" parenting and adolescent adjustment is moderated by the ecological context in which adolescents live. Defines ecological niches by ethnicity, socioeconomic status, and family structure. Uses four indicators of adjustment: school performance, self-reliance, psychological distress, and delinquency. Finds that the positive correlates of authoritative parenting transcend ethnicity, socioeconomic status, and family structure. Concludes that adolescents whose parents are accepting, firm, and democratic earn higher grades in school, are more self-reliant, report less anxiety and depression, and are less likely to engage in delinquent behavior.

3. STUDENT EMPLOYMENT:

Barton, P. E. (1989). Earning and learning: The academic achievement of high-school juniors with jobs. Princeton, NJ: National Assessment of Educational Progress, Educational Testing Service.

Relates the hours worked per week to the achievement of eleventh-grade students on the National Assessment of Educational Progress proficiency scale for mathematics, science, reading, U.S. history, and literature. Describes who works and who does not; examines the adjustments working students make in other activities; charts the growth of the student work force; summarizes the results of major research projects that have addressed the effects of student work on school performance. Concludes that average proficiency in all subjects assessed differed little between students who worked and those who did not and was little affected by the number of hours worked, although students who worked more than 20 hours had slightly lower average proficiency and were likely to be less involved in the academic content of schooling. Highlights those factors not measured in the surveys and research studies that should be taken into account when considering the circumstances of individual students.

D'Amico, R. (1984). Does employment in high school impair academic progress? Sociology of Education, 57(3), 152-164. (EJ 312 832)

Employs a congruence hypothesis to show that high school employment may foster high school achievement. Finds that there is a correspondence between the personality traits rewarded and promoted by employers and those traits promoted and rewarded by teachers.

Finch, M. D., & Mortimer, J. T. (1985). Adolescent work hours and the process of achievement. In Alan C. Kerchoff (Ed.), Research in Sociology of Education, 5, 171-196.

Investigates the interrelations of adolescent work hours and school achievement by examining a series of causal models using panel data obtained during the years of high school. Assesses the longer-term implications of the intensity of adolescent work experience by estimating a model of the attainment of education, income, occupational prestige and work autonomy five years after high school graduation.

Greenberger, E., & Steinberg, L. (1986). When teenagers work: The psychological and social costs of adolescent employment. New York: Basic Books.

Criticizes the belief that employment teaches teenagers skills, fosters respect for work, and increases teens' appreciation of the dollar. Cites evidence that teen employment can lead to poor schoolwork, spendthrift habits, delinquency, and contempt for the work ethic. Examines research showing that most working teens spend their money as fast as they make it. Argues that work takes time away from studying and extracurricular activities that are essential for the development of maturity. Offers suggestions for limiting teen employment, such as raising the minimum wage so that retirees and other adults are attracted to the jobs, therefore reducing the number of hours teens can work.

Hamilton, S. F. (1987). Apprenticeship as a transition to adulthood in West Germany. American Journal of Education, 95(2), 314-345. (EJ 350 230)

Observes that while the United States has no effective bridges between school and work, half of West Germany's 16- to 18-year-olds learn a career in the workplace while attending school one day a week. Argues that this model can be adapted for American students to increase their employment opportunities and make academic learning easier.

McNeil, L. M. (1984). Lowering expectations: The impact of student employment on classroom knowledge. Madison, WI: Wisconsin Center for Education Research, University of Wisconsin. (ED 242 941)

Explores student and teacher disengagement from the educational process as a result of student part-time employment. Reports findings of a 1981 survey of 1577 Wisconsin high school students. Employs descriptive and ethnographic data previously collected. Finds student employment to be a key factor in lowering teacher expectations of student interest and performance and reducing teacher motivation to prepare challenging and engaging activities.

Steinberg, L. D. (1982). Jumping off the work experience bandwagon. Journal of Youth and Adolescence, 2(3), 183-205.

Reviews and summarizes research literature on the impact of the adolescent work experience. Focuses on three areas of work experience: 1) career education programs, 2) youth employment and training programs, and 3) part-time employment. Finds that the benefits of working to education, socialization, and subsequent employment have been greatly overestimated.

B. AT-RISK STUDENT PROJECT

1. GENERAL REFERENCES:

Erickson, F. (1987). Transformation and school success: The politics and culture of educational achievement. Anthropology and Education Quarterly, 18, 335-356.

Examines the perceived legitimacy of the school and its teachers and the development of oppositional culture by students. Considers two theories of minority student alienation: 1) the sociolinguistic position, i.e., the cultural difference in communication style between teachers and students, and 2) Ogbus's perceived labor market explanation, i.e., minority students don't see education as helping them get good employment. Concludes that the politics of legitimacy, trust, and assent are the three fundamental factors in school success.

Gibson, M. A. (1982). Reputation and respectability: How competing cultural systems affect students' performance in school. Anthropology and Education Quarterly, 13(1), 3-27. (EJ 263 910)

Analyzes the interrelation of ethnicity, sex role, peer group, and social class, and discusses the effect of these variables on school performance. Examines the value of a cultural compatibility-incompatibility framework for explaining school success by drawing upon fieldwork in St. Croix (Virgin Islands).

Howe, H., II., & Edelman, M. W. (1985). Barriers to excellence: Our children at risk. Boston: National Coalition on Advocates for Students.

Pleads for the investment of more resources in educating disadvantaged children. Examines class, cultural, racial, and sexual discrimination in the schools. Maintains that school structure, ability grouping, testing and the narrowness of curriculum and teaching practices as well as a lack of adequate vocational education, of support services for youth, of early childhood programs, and of democratic governance all pose barriers to optimal education for the underprivileged. Offers suggestions for minimizing discrimination and providing greater educational opportunities.

Moore, D. R., & Davenport, S. (1989). High school choice and students at risk. Equity and Choice, 5(1), 5-10.

Outlines some of the potential dangers posed by high school choice programs for students identified "at-risk". Highlights these problems: 1) the easiest way for a magnet school to build a reputation as a good school is to recruit high-achieving students and avoid admitting low-

achieving students; 2) many magnet schools lack services for students with handicaps or limited English proficiency; 3) many magnet schools have complex and daunting admissions processes; 4) selective schools siphon-off high-achieving students and teachers and leave an even more concentrated population of low achievers in the neighborhood schools; 5) magnet schools may receive a greater allocation of resources than neighborhood schools; 6) those students who are not selected are demoralized. Includes recommendations to improve the admissions process for at-risk students.

Wehlage, G. G. (1986). At-risk students and the need for high school reform. Education, 107(1), 18-28.

Argues that schools may contribute to the problems of at-risk students and lower their self-esteem. Offers a model program based on research and staff development experiences to improve the school experience for at-risk students. Emphasizes small size, authority to create an environment appropriate to the selected population of students, and a teacher culture featuring collegiality, optimism about student success and an extended role toward students. Recommends individualized curricula coupled with group experiences.

Wehlage, G. G. (1989). Engagement, not remediation or higher standards. In J. Lakebrink (Ed.), Children at risk (pp. 57-73). Springfield, IL: Charles A. Thomas.

Addresses the problem of engaging at-risk youth in the work of school. Suggests that programs for all students, especially low achievers, need to link the world of action outside the school to the academic environment by providing an experiential curriculum and mode of learning. Discusses two programs, the Media Academy and Croom Vocational High School, that create this link.

Wehlage, G. G., Rutter, R. A., Smith, G. A., Lesko, N. L., & Fernandez, R. R. (1989). Reducing the risk: Schools as communities of support. Philadelphia, PA: Falmer Press.

Describes the efforts of 14 secondary schools to prevent students form dropping out. Presents a theory of dropout prevention that maintains that effective schools provide at-risk students with a community of support in which school membership and educational engagement are central. Offers the following policy recommendations: 1) districts should establish strong permanent alternatives as part of a comprehensive strategy of dropout prevention; 2) districts, in cooperation with state departments of education, should establish special alternative schools for at-risk students with a clear mission that includes experimentation, curricular innovation and staff development; 3) state policy should require each school system to establish a Management Information System (MIS) that provides basic and common data on all students; 4) state policy should require schools to examine the effects of course failure, grade retention, out-of-school suspension and other practices that appear to impact negatively on at-risk students; 5) state and local policy should encourage the decentralization of large schools and school systems, creating smaller units characterized by site-based management; 6) state and local policy should encourage the development of new curricula and teaching strategies designed for diverse groups of at-risk students; 7) state and local policy should develop mechanisms to hold schools accountable for their dropout rates through a system emphasizing outcomes and results; 8) cities should develop broad-based community partnerships aimed at serving at-risk youth.

2. DROPOUTS:

Alexander, K. L., Natriello, G., & Pallas, A. M. (1986). For whom the school bell tolls: The impact of dropping out on cognitive performance. Baltimore, MD: Center for Social Organization of Schools. (ED 253 842)

Describes a study that assessed the contribution of schooling to cognitive development by comparing the cognitive development for high school graduates and dropouts over a two-year period. Reports that the cognitive skills of students who stay in school improve more than those of dropouts and that dropping out harms disadvantaged students most.

Bryk, A. S., & Thum, Y. M. (1989). The effects of high school organization on dropping out: An exploratory investigation. New Brunswick, NJ: Center for Policy Research in Education, Rutgers, The State University of New Jersey. (ED 304 755)

Examines the effects of school characteristics on both the probability of dropping out and the strongest predictor of dropping out - absenteeism. Uses a sub-sample from the High School and Beyond database. Finds that absenteeism is less prevalent in schools where faculty are interested and engaged with students and that students are more likely to graduate from schools where there is an emphasis on academic pursuits, an orderly environment, and less internal differentiation of program and curriculum. Concludes that institutions whose structure and functioning coalesce around a sense of shared purpose create a coherent school life that is apparently able to sustain the engagement of students.

Catterall, J. S. (1987). On the social costs of dropping out of school. The High School Journal, 71(1), 19-30.

Explores the social costs that have been attributed to the non-completion of school by reviewing and updating the only comprehensive treatment of this topic to date, that of Levin in 1972.

Catterall, J. S. (1989). Standards and school dropouts: A national study of tests required for high school graduation. American Journal of Education, 98(1), 1-34.

Analyzes minimum competency tests that students must pass before they receive a high school diploma. Examines the effects of these tests on low-achieving high school students. Finds that initial test failures are significantly more likely to express doubts about their chances of completing the diploma. Also assesses the effects of earlier grade retention, academic performance, peer culture, and family background on confidence in finishing school. Discusses the implications of these findings for research, policymaking, and educational practice.

Center on Evaluation, Development, Research. (1987). Dropouts, pushouts, and other casualties. Bloomington, Indiana: Phi Delta Kappa. (ED 294 972)

Presents 13 papers that assess recent information and research on the dropout problem. Makes suggestions for developing a single definition of "dropout". Addresses the challenge of using the correct methodology to measure the dropout rate accurately. Identifies student attributes that are related to dropping out and characteristics of successful dropout prevention or intervention programs. Discusses the possible impact of new reforms and proposes a model program for at-risk students.

Combs, J., & Cooley, M. W. (1968). Dropouts: In high school and after school. American Educational Research Journal, 5(3), 343-363.

Investigates Project TALENT, a testing device in the 1960s for high school male and female 9th graders, and the dropout rate of the same group four years later. Compares dropout's abilities, interests, self-perceptions, activities, and reasons for leaving school to a control group of high school graduates who did not go to college. Finds that the results were inconclusive, except that at age 19, dropouts earned a higher salary than the control group of the same age, suggesting a socioeconomic advantage for dropouts.

Earle, J., Roach, V., & Fraser, K. (1987). Female dropouts: A new perspective. Alexandria, VA: National Association of State Boards of Education.

Outlines specific factors for young women dropping out of school, namely, their cognitive differences, treatment by teachers, curricular choices, and their early socialization. Finds that all factors affect self-esteem and academic achievement. Suggests that due to structured high school systems, this issue is often unaddressed. Offers policies and strategies to provide assistance to state and local policy makers.

Howard, M. P., & Anderson, R. J. (1978). Early identification of potential school dropouts: A literature review. Child Welfare, 57(4), 221-231. (EJ 178 128)

Surveys the literature profiling school dropouts. Suggests that a student's decision to leave school is not an isolated decision but one based on many interactive factors, both personal and academic.

Mensch, B. S., & Kandel, D. B. (1988). Dropping out of high school and drug involvement. Sociology of Education, 61(2), 95-113.

Explores the relationship between dropping out of high school and substance use using the National Longitudinal Survey of Young Adults, a national longitudinal sample of young Americans aged 19-27 in 1984. Finds that cross-sectional data indicate that high school dropouts were more involved with cigarettes and illicit drugs than were graduates and that those who obtained a graduate equivalency diploma were the most intensely involved. Indicates that event-history analysis shows that, controlling for other important risk factors, prior use of cigarettes, marijuana, and other illicit drugs increases the propensity to drop out and that the earlier the initiation into drugs, the greater the probability of premature school leaving. Concludes that preventing or at least delaying initiation of drug use will reduce the incidence of dropping out from high school.

Natriello, G. et al. (1986). School dropouts: Patterns and policies. Teachers College Record, 87(3).

Devotes the entire issue of this journal to articles on school dropouts, specifically patterns of dropping out and policies developed and implemented to reduce the incidence of dropping out. Considers the implications of these articles for the development of an agenda for further research on the dropout phenomenon.

Rumberger, R. W. (1983). Dropping out of high school: The influence of race, sex, and family background. American Educational Research Journal, 20(2), 199-220. **(EJ 289 066)**

Examines the high school dropout problem in 1979 and the reasons why students leave school. Concludes that women were more likely to leave because of pregnancy or marriage and men because of work. Observes that family background strongly influenced dropout behavior and accounted for almost all racial differences in dropout rates.

Rumberger, R. W. (1987). High school dropouts: A review of issues and evidence. Review of Education Research, 57(2), 101-121.

Examines the many issues involved in trying to understand and solve the complex social and educational problem of high school dropouts. Groups these issues into four categories covering the incidence, causes, consequences, and solutions to the problem. Identifies within each category the important issues involved, the current state of research on the issues, and considerations for future research.

Steinberg, L., Blinde, P. L., & Chan, K. S. (1984). Dropping out among language minority youth. Review of Educational Research, 54, 113-132. **(EJ 298 914)**

Discusses these variables concerning school-leaving among language minority youth: background factors, academic achievement, school characteristics, school performance, and school experiences. Concludes that a combination of socioeconomic disadvantage and early academic failure appear to contribute to the higher dropout rate of language minority children.

Tidwell, R. (1988). Dropouts speak out: Qualitative data on early school departures. Adolescence, 23(92), 939-954.

Reports on interviews of 374 urban high school dropouts concerning their primary reason for leaving school early. Investigates the respondents' educational history, activities and future plans, and reflections on their high school experience. Concludes that schools are frequently not giving students enough to make them forgo dropping out even though the students themselves see it as only a short-term solution to their financial difficulties.

Velez, W. (1989). High school attrition among Hispanic and non-Hispanic white youths. Sociology of Education, 62, 119-133.

Examines the effects of a number of factors on the dropout behavior of high school students drawn from the base year and first followup of High School and Beyond. Finds that 1) cutting classes, suspensions, dating, being older, and being female substantially increased the odds of Chicano students dropping out, that 2) among Cuban students, suspensions increased the odds of dropping out, but having disciplinary problems at school, high socioeconomic status, and having two parents at home substantially decreased them, and that 3) for Puerto Rican students, cutting classes, suspension, being older, and being female increased the odds, but having two parents at home decreased them. Notes also the intra-Hispanic differences in the effects of immigration on school attrition.

Wehlage, G., & Rutter, R. (1986). Dropping out: How much do schools contribute to the problem? Teachers College Record, 87(3), 374-392.

Probes the High School and Beyond data for insights into the characteristics of students' school experiences that may contribute to dropping out and that might be altered through policy interventions. Argues that it is irresponsible for schools to fail to provide effective education for all students. Recommends three general reforms of policy and practice: 1) an enhanced sense of professional accountability among educators toward all students; 2) a renewed effort to establish legitimate authority with the institution; 3) a redefinition of school work for students and teachers that will allow a greater number of students to achieve success and satisfaction and to continue their schooling.

Wheelock, A. (1986). The way out: Student exclusion practices in Boston Middle Schools. Boston: Massachusetts Advocacy Center. (ED 303 529)

Analyzes the role middle schools play in the phenomenon of student dropout. Describes programs developed in some Boston middle schools that the author believes hold out the promise of enhancing achievement, attendance, and discipline in all middle schools. Makes recommendations for changes in policies and practices.

Williams, P. A. (1986). Standardizing school dropout measures. Madison, WI: Center for Policy Research in Education, University of Wisconsin. (ED 298 184)

Proposes the establishment of a standard definition of school dropout to alleviate confusion surrounding dropout rates produced by non-uniform accounting practices.

3. INTERVENTIONS:

California Department of Education. (1986). Beyond language: Social and cultural factors in schooling language minority students. Los Angeles: Evaluation, Dissemination, and Assessment Center. (ED 304 241)

Presents a theory of how sociocultural factors influence minority education. Examines historical explanations for why some groups do better in school than others. Analyzes such sociocultural factors as group attitudes toward education, self-identity, historical experiences, and cultural values. Illustrates how language development can be improved, based on a positive link between the home and school, using ethnographic methods.

Cummins, J. (1986). Empowering minority students: A framework for intervention. Harvard Education Review, 56(1), 18-36. (EJ 330 827)

Presents a theoretical framework for analyzing minority students' school failure and the relative lack of success of previous attempts at educational reform, such as compensatory education and bilingual education. Suggests that these attempts have been unsuccessful because they have not altered significantly the relationships between educators and minority students and between schools and minority communities.

Foley, E. M., & McConnaughy, S. B. (1982). Towards school improvement: Lessons from alternative high schools. New York: Public Education Association. (ED 253 596)

Discusses the pros and cons of alternative high schools for educating truants, dropouts, and potential dropouts. Examines the strengths of the alternative schools as: 1) well-focused academic programs, 2) well-defined student populations, 3) strong academic principals as leaders, 4) diversified roles for teachers, 5) fast-paced cycles and learning contracts which enhance academic success, 6) commonly-agreed upon school rules, and, 7) small school size. Suggests directions for boards of education concerning dropout prevention, small high school size, and comprehensive programming for dropouts and/or high risk students.

Gerics, J., & Westheimer, M. (1988). Dropout prevention: Trinkets and gimmicks or Deweyan reconstruction? Teachers College Record, 90(1), 41-60.

Describes New York City's Dropout Prevention Initiative and raises questions from a Deweyan perspective about the conceptual basis of the plan. Criticizes the plan as a collection of ad hoc interventions aimed at particular symptoms of a deep-seated social problem reflected in the school behavior of students targeted as at risk of dropping out, rather than a coherent plan to restructure the education of all students in a dialogue with their experience. Offers these recommendations for improvement: 1) education must begin with experience, not subject matter; 2) schools must adapt to at-risk students; 3) schools should reconstruct the curricula around work experiences so that at-risk students have a real opportunity to improve their economic status when they graduate.

Hahn, A., & Danzberger, J. (1987). Dropouts in America: Enough is known for action. Washington, DC: Institute for Educational Leadership. (ED 282 948)

Reviews research and existing programs that address the problem of school dropouts. Considers current policy trends in public education. Identifies major risk factors associated with the decision to leave school. Considers the prospects for dropouts of reentering the mainstream, attending alternative schools, or finding employment. Concludes that to prevent student dropout, intervention must respond to adolescents' distinct and individual needs, the social and economic problems afflicting poor and minority youngsters, and the crisis of competence that immobilizes many at-risk youth. Recommends a comprehensive, integrated strategy for tackling the problem.

Mills, R. C., Dunham, R. G., & Alpert, G. P. (1988). Working with high-risk youth in prevention and early intervention programs: Toward a comprehensive wellness model. Adolescence, 23(91), 643-660.

Presents a theory of youth development and learning that is based on findings that at-risk youth have the inherent capability of developing a more mature outlook, of functioning with common sense, and of having an interest in learning and a natural attraction to nondeviant lifestyles. Suggests that dropout prevention programs should focus on developing positive educational and social environments and on fostering the kinds of relationships in these settings that minimize conditions which trigger insecure, negatively-biased states of mind. Maintains that when enhancing the school climate is not sufficient to alter students' negatively-conditioned states of mind, youth can be taught directly to understand how the quality of their perceptions and feelings changes with their state of mind and to recognize distortions in their attributions as such.

Orr, M. T. (1987). Keeping students in school: A guide to effective dropout prevention programs and services. San Francisco: Jossey-Bass.

Relates case studies of 14 successful public school programs designed to prevent student dropout. Identifies the major causes of dropping out. Provides guidelines for identifying what students are at risk of dropping out. Analyzes why certain programs work and offers suggestions for future programs.

Smith, G. A. (1989). The media academy: Engaging students in meaningful work. Educational Leadership, 46(5), 38-39.

Describes the Media Academy, a school-within-a-school at Fremont High School in Oakland, California. Claims that the Media Academy, designed to prepare at-risk black and Hispanic students for occupations in the print and electronic media, succeeds in actively engaging students in their own learning. Points out that the program cultivates competence, provides extrinsic rewards, taps intrinsic interest, and offers social support and the experience of ownership of work to students.

Pogrow, S. (1990). A Socratic approach to using computers with at-risk students. Educational Leadership, 47(5), 61-66.

Presents a Socratic method for using computers with at-risk students. Demonstrates why this approach to learning is particularly effective with low-achieving students.

Slavin, R. E., Karweit, N. L., & Madden, N. A. (1989). Effective programs for students at risk. Boston, MA: Allyn and Bacon.

Provides current information on what is known about effective programs for students at risk of school failure, particularly those who are currently served in compensatory and special education programs. Draws these conclusions: 1) the quality, rather than the setting, of remedial or special education programs makes an important difference in the school success of at-risk students; 2) prevention and early intervention are more effective than remedial or delayed special education services; 3) pullout programs should be intensive, brief, and designed to quickly catch students up with the rest of the class and not support students indefinitely; 4) preschool and extended-day kindergarten programs can contribute to the cognitive and social development of children from low-SES backgrounds; 5) collaboration and consistency between regular, remedial, and special education are essential; 6) effective practices for students at risk tend not to be qualitatively different from the best practices of general education.

Wehlage, G. G. (1983). Effective programs for the marginal high school student. Fastback. Bloomington, IN: Phi Delta Kappan Educational Foundation. (ED 235 132)

Defines marginal students as those who find themselves unsuccessful, unhappy, and even unwelcome in school. Describes six effective school programs for these students and identifies the characteristics of these programs, including small size, teacher autonomy, teacher collegiality, high teacher expectations, a "family atmosphere," individualized instruction in subjects like math and writing skills, and experiential curricula. Provides practical tips for educators planning such a program.

Wehlage, G. G., Rutter, R. A., & Turnbaugh, A. (1987). A program model for at-risk high school students. Educational Leadership, 44(6), 70-73.

Outlines problems inherent in constructing new school experiences for at-risk students. Describes a model program for these students. Suggests building a school-within-a-school or an alternative school which accommodates 25 to 100 students. Sees teachers in the program as autonomous and prepared to deal with the "whole child" and part of a cooperative teacher culture. Proposes developing a student culture characterized by regular attendance, commitment to work, and a "family" atmosphere. Insists that the curriculum must include individualization, clear objectives, prompt feedback, concrete evidence of progress, and an active role for students. Concludes with a discussion of the importance of experiential learning and an assessment of research indicating that the greater the degree of fidelity to this model, the greater the effects on students' behaviors and attitudes.

Wheelock, A., & Dorman, G. (1988). Before it's too late: Dropout prevention in the middle grades. Carrboro, NC: Center for Early Adolescence. Boston, MA: Massachusetts Advocacy Center. (ED 301 355)

Contends that the stresses of schooling begin to intensify at the middle level. Synthesizes current trends in the literature on school reform, dropouts, effective schools, and successful practices in the middle grades to create a framework for thinking about dropout prevention at the intermediate level. Argues for add-on programs directed specifically toward those whose educational or social needs put them at risk of dropping out. Asserts that middle schools must abandon school practices related to student achievement, attendance, and behavior which undermine academic success and developmental progress and convey messages to students that they do not belong in the educational mainstream.

C. HIGHER ORDER THINKING PROJECT

1. CONCEPTS AND THEORY:

Baron, J. (1988). Thinking and deciding. Cambridge, England: Cambridge University Press.

Presents a "search-inference framework" for describing all goal-directed thinking and decision-making; i.e., maintains that thinking can be described as inferences made from possibilities, evidence, and goals that are discovered through searching. Argues that the main problem with thinking and decision-making is that much of it suffers from a lack of "active open-mindedness." Seeks to answer these questions: 1) What is good thinking, ideally? 2) How do we think? What prevents us from doing our best thinking? 3) What can we do to improve our thinking and decision-making, both as individuals and as a society? Examines how thinking and decision-making can be taught.

Beyer, B. (1985). Critical thinking: What is it? Social Education, 49(4), 270-276. (EJ 316 045)

Defines critical thinking as the process of determining the authenticity, accuracy, and worth of information or knowledge claims. Suggests that critical thinking consists of a number of discrete skills.

Beyer, B. K. (1990). What philosophy offers to the teaching of thinking. Educational Leadership, 47(5), 55-60.

Asserts that philosophy is the only discipline that has thinking as both its subject and its method of inquiry and thus should be incorporated in thinking skills programs. Highlights six philosophic concepts useful for teaching.

Cornbleth, C. (1985). Critical thinking and cognitive processes. In W. B. Stanley (Ed.), Review of research in social studies education: 1976-1983, pp. 11-63. Boulder, CO: ERIC Clearinghouse for Social Studies/Social Science Education. (ED 255 469)

Reviews the cognitive and social studies research relevant to understanding and teaching for critical thinking. Examines persistent myths that impede critical thinking and teaching. Finds that critical thinking may be fostered by providing opportunity and support for student questioning and by providing instruction as needed for raising meaningful questions and pursuing well-reasoned answers. Concludes that the value of research and theory to teachers is interpretive more than instrumental.

Ennis, R. H. (1989). Critical thinking and subject specificity: Clarification and needed research. Educational Researcher, 18(3), 4-10.

Explores the claim that critical thinking is subject specific. Proposes a clarification of the topic in the form of a number of distinctions, including a distinction among three versions of subject specificity: domain, epistemological, and conceptual subject specificity. Outlines future research on the topic.

Ennis, R. H. (1962). A concept of critical thinking. Harvard Educational Review, 32(1), 81-111.

Identifies twelve aspects of critical thinking and elaborates a system of criteria to be applied to each. States the possible implications for education of this concept of critical thinking.

Glaser, R. (1984). Education and thinking: The role of knowledge. American Psychologist, 39,93-105.

Investigates the application of recent advances in developmental psychology and cognitive science to classroom teaching. Discusses the implications of past and present theories of human intelligence for educational programs designed to improve reasoning and problem-solving skills. Examines the interaction between the development of higher-order cognitive abilities and the acquisition of structures of domain-specific knowledge.

Glaser, R. (1990). The reemergence of learning theory within instructional research. American Psychologist, 45(1), 29-39.

Analyzes the principles, theory, and assumptions about learning and instruction that underlie a representative set of instructional programs aimed at producing specified forms of competence. Discusses programs for the acquisition of proceduralized knowledge, the development of self-regulatory strategies, and the structuring of knowledge for problem solving. Suggests that instructional experimentation is of increasing value to the interactive growth of learning theory and its applications. Offers approaches for the future integration of various theories of learning and of conditions that foster the acquisition of knowledge and skill.

Keating, D. P. (1988). Adolescents' ability to engage in critical thinking. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin-Madison. (ED 307 508)

Synthesizes research on the ability of adolescents to engage in critical thinking. Defines critical thinking as thinking which is described as analytic and focused cognitive activity, whose aim is the understanding of phenomena at a root rather than a superficial level. Concludes that there is no persuasive evidence of fundamental constraints on the ability of early adolescents to engage in critical thinking.

Langer, J. A., & Applebee, A. N. (1987). How writing shapes thinking. Urbana, IL: National Council of Teachers of English. (ED 286 205)

Examines writing assignments as part of the secondary school curriculum to determine their use in fostering learning and integrating new information with previous knowledge and experience. Provides models of thoughtful and thought-provoking writing activities for use in a variety of subject-area classrooms. Finds that: 1) the more that the content is manipulated, the more likely it is to be remembered and understood; 2) the effects of writing tasks are greatest for the particular information focused upon during the writing; 3) writing tasks differ in the breadth of information drawn upon and in the depth of processing of that information that they invoke; 4) if content is familiar and relationships are well understood, writing may have no major effect al all. Offers a new approach to writing instruction based on carefully structured support as students undertake new and more difficult tasks in contrast to the standard approach which is based on providing information and evaluating what students have learned.

Mayer, R. E. (1983). Thinking, problem solving, cognition. New York: W. H. Freeman.

Discusses the so-called "highest" mental processes, especially problem solving. Looks at "Associationism," "Gestalt," "Meaning," "Rule Induction," and "Deductive Reasoning." Examines the information processing approach.

McPeck, J. E. (1981). Critical thinking and education. New York: St. Martins.

Discusses theories and practices of teaching critical thinking, including: 1) the meaning of critical thinking 2) relations among critical thinking, epistemology, and education, 3) prevailing views of critical thinking among educators, philosophers, and psychologists, 4) the relation between informal logic and critical thought, 5) the work of Edward de Bono, 6) reading, testing, and critical thinking, and 7) critical thinking and the "basics."

Newmann, F. M. (1988). Higher order thinking in the high school curriculum. NASSP Bulletin, 72(508), 58-64.

Defines higher order thinking and contrasts it with lower order thinking. Suggests that higher order thinking may be difficult to teach because it is difficult to diagnose students' individual mental states. Identifies four barriers to the promotion of higher order thinking in school: superficial coverage of too much information, student passivity, organizational and time constraints, and a cultural preference for mental leisure. Offers recommendations for ways that principals can promote thinking.

Norris, S. P. (1989). Can we test validly for critical thinking? Educational Researcher, 18(9), 21-26.

Discusses the generalizability of critical thinking and the existence of a critical thinking disposition. Outlines a series of procedures that can help increase the validity of one fundamental aspect of critical thinking testing - multiple-choice testing of credibility judgment. Maintains that improving multiple-choice tests where they are applicable can have important practical and scientific implications.

Presseisen, B. Z. (1986). Critical thinking and thinking skills: State of the art definitions and practice in public schools. Philadelphia, PA: Research for Better Schools. (ED 268 536)

Examines the current interest in critical thinking and thinking skills and compares it with similar concerns over the past 40 years. Identifies significant issues facing the movement for critical thinking. Includes extensive bibliography.

Raven, J. (1987). Values, diversity, and cognitive development. Teachers College Record, 89(1), 21-38.

Criticizes the assumption that education for cognitive development is value-free. Argues that the promotion of cognitive development is a heavily value-laden enterprise and that educators need to understand this so that they can value and intentionally nurture an appropriate diversity of competencies in children.

Resnick, L. B. (1987). Education and learning to think. Washington, DC: National Academy Press. (ED 289 832)

Assesses the role of higher order thinking in secondary education. Attempts to answer these questions: What are higher order skills? Can higher order thinking be taught? How should instruction in higher order thinking be organized? Concludes that motivation and cognition are intimately related and that this topic has yet to be adequately researched.

Resnick, L. B., & Klopfer, L. E. (Eds.) (1989). Toward the thinking curriculum: Current cognitive research. 1989 yearbook of the Association for Supervision and Curriculum Development. Alexandria, VA: Association for Supervision and Curriculum Development.

Attempts to integrate the two major trends influencing the future of educational development: knowledge and thinking. Defines "thinking curriculum" as a curriculum that incorporates the

cultivation of thinking skills in all subjects in all grades. Reflects recent developments in cognitive psychology and related fields.

Schrag, F. (1989). Are there levels of thinking? Teachers College Record, 90(4), 529-533.

Claims that attempts to identify criteria which mark out higher order thinking and distinguish it from lower order thinking are unsatisfactory. Discusses the difficulty inherent in formulating the notion that thinking varies in a hierarchical way from simple to complex. Critiques concepts of Resnick and Bloom.

Schrag, F. (1987). Thinking in school and society. New York: Routledge & Kegan Paul.

Attempts to integrate the perspectives of several disciplines in outlining how schools might help students to become better thinkers. Examines what thinking is. Focuses on experimental investigations of thinking with a view to understanding what recent research in cognitive psychology offers concerning the nature of thinking and its relationship to learning. Explores the classroom as a context for thinking and suggests ways for creating thoughtful contexts. Discusses the extent to which the economy, the polity, and television elicit and reward thinking. Proposes changes in the educational sphere and in the broader society which have the potential to improve the quality of thinking.

Simon, H. A. (1973). The structure of ill-structured problems. Artificial Intelligence, 4, 181-201.

Claims that the boundary between well-structured and ill-structured problems is vague, fluid, and not susceptible to formalization. Observes that any problem-solving process will appear ill-structured if the problem-solver is a serial machine that has access to a very large long-term memory of potentially relevant information and/or access to a very large external memory that provides information about the actual real-world consequences of problem-solving actions. Suggests that there is no reason to suppose that new and hitherto unknown concepts or techniques are needed to enable artificial intelligence systems to operate successfully in domains that have these characteristics.

Sternberg, R. J., & Bhana, K. (1986). Synthesis of research on the effectiveness of intellectual skills programs: Snake-oil remedies or miracle cures? Educational Leadership, 44(2), 60-67. (EJ 342 535)

Reviews the research on the effectiveness of five thinking skills training programs: Instrumental Enrichment, Philosophy for Children, Structure-of-Intellect (SOI), Problem Solving and Comprehension: A Short Course in Analytical Reasoning, and Odyssey. Compares and contrasts the content of each program and describes the relative lack of adequate evaluations of the programs.

Voss, J. F., Greene, T. R., Post, T. A., & Penner, B. C. (1983). Problem-solving skill in the social sciences. In G. H. Bower (Ed.), The psychology of learning and motivation: Advances in research theory (Vol. 17, pp. 165-213). New York: Academic Press. (ED 242 612)

Describes the general information processing model of problem solving. Discusses some of the characteristics of social science problems. Presents a specific model of the solving process

developed by the authors and summarizes the protocols that they have collected. Concludes that the solving of complex and ill-defined as well as "real-world" problems is amenable to study.

2. PROGRAM DESCRIPTION AND RESEARCH:

Adams, M. J. (1989). Thinking skills curricula: Their promise and progress. Educational Psychologist, 24(1), 25-77.

Analyzes the structure and effectiveness of a number of programs designed to teach thinking skills. Maintains that the direct teaching of thinking offers an important complement to the conventional school regimen for all students and an invaluable one for those with scholastic difficulties. Describes a thinking skills program, Odyssey, developed by the author.

Brown, A. L., Bransford, J. D., Ferrara, R. A., & Campione, J. C. (1983). Learning, remembering, and understanding. In J. H. Flavell & E. M. Markam (Eds.), Carmichael's handbook of child psychology (Vol. 3, pp. 77-166). New York: John Wiley and Sons.

Discusses the interactive nature of learning and the dynamic nature of learning. The chapter is divided into four main sections: 1) overview of the principal trends of children's learning in the 1970s, 2) a review of the literature, 3) controversies surrounding metacognition, and, 4) the implication of work in this area for instruction as well as on the importance of considering instructional effects when formulating basic developmental theory. Examines memory research, both understanding and rote recall, as well as acquisition mechanisms in a variety of domains.

Chance, P. (1986). Thinking in the classroom: A survey of programs. New York: Teachers College Press.

Discusses selecting and evaluating instructional programs on thinking skills. Examines eight different approaches: CoRT Thinking Lessons, Productive Thinking Program, Philosophy for Children, Odyssey, Instrumental Enrichment, Problem Solving and Comprehension, Techniques of Learning, and Thoughtful Teaching. Summarizes essential information of each program, including names and addresses of publishers, goals, methods, and materials, audience, teacher qualifications, and benefits and special problems.

Chipman, S. F., Segal, J. W., & Glaser, R. (Eds.) (1985). Thinking and learning skills, Vol. 2: Research and open questions. Hillsdale, NJ: Lawrence Erlbaum Associates.

Provides summaries of cognitive research programs. Highlights research issues related to the development of thinking and learning skills.

Costa, A. (Ed.). (1985). Developing minds: A resource book for teaching thinking. Alexandria, VA: Association for Supervision and Curriculum Development. (ED 262 968)

Presents articles, instruments, references, and other resources useful to educators for planning thinking-skills programs.

de Bono, E. (1983). The direct teaching of thinking as a skill. Phi Delta Kappan, 64(10), 703-708. (EJ 283 852)

Emphasizes the relationship of perception to thinking and explains direct teaching of thinking skills. Recommends the cognitive Research Trust program for teaching thinking skills using transferable thinking "tools". Claims that the self-images of students are enhanced by this program.

Foshay, A. W. (1976). Utilizing man's experience: The quest for meaning. In W. Van Til (Ed.), Issues in secondary education (75th yearbook of the National Society for the Study of Education, Part 2) (pp. 137-152). Chicago: University of Chicago Press.

Examines the ways that human experience is made available to the young, attending to the types of knowledge offered in secondary schools: 1) facts and findings; 2) sources and processes; 3) techniques. Attempts to place each type of knowledge in a relationship with the others. Encourages meaningful knowledge in secondary education so that learning will have meaning to students.

Herrnstein, R. J., Nickerson, R. S., De Sanchez, M., & Swets, J. A. (1986). Teaching thinking skills. American Psychologist, 41(11), 1279-1289.

Presents a course designed to teach cognitive skills that apply to learning and intellectual performance independently of subject matter, stressing observation and classification, reasoning, critical use of language, problem-solving, inventiveness, and decision-making. Observes that standard and special objective tests and various subjective tests indicate consistently that the course had sizable, beneficial effects on its students.

Lipman, M. (1985). Thinking skills fostered by philosophy for children. In J. W. Segal, S. F. Chipman, & R. Glaser (Eds.), Thinking and learning skills, Vol. 1: Relating instruction to research (pp. 83-108). Hillsdale, NJ: Lawrence Erlbaum Associates.

Describes the Philosophy for Children Program for students in grades K-12. Presents the basic ideas and assumptions that characterize this instruction in thinking skills. Highlights the portion of the program designed for grades 4-8. Describes major pedagogical features of the program. Reviews the evaluation data on the program. Concludes that students who have been exposed to the program are more reasonable and more thoughtful, and that their teachers are not merely better at teaching specific subjects, but also are more effective in developing general thinking skills.

Nickerson, R. S. (1988). On improving thinking through instruction. In E. Z. Rothkopf (Ed.), Review of Research in Education, 15 (pp. 3-57). Washington, DC: American Educational Research Association.

Reviews literature on the question of how thinking might be improved through classroom instruction. Concludes that significant progress has been made in recent years on the problem of how to teach thinking and that this progress stems from a greater awareness of the complexity of human cognition and the limits of our understanding of it. Maintains that no single approach can teach all aspects of thinking and that a multipronged and prolonged approach is required. Includes extensive bibliography.

Nickerson, R. S., Perkins, D. N., & Smith, E. E. (1985). The teaching of thinking. Hillsdale, NJ: Lawrence Erlbaum Associates.

Reviews theories of thinking and intelligence. Describes and evaluates programs for teaching thinking with these approaches: cognitive operations, heuristics-oriented, formal thinking, thinking through language, symbol manipulation, and thinking about thinking. Devotes one chapter to evaluation of student thinking. Speculates on the prospects for teaching thinking.

Norris, S. P. (1985). Synthesis of research on critical thinking. Educational Leadership, 42(8), 40-45. (EJ 319 814)

Reviews the research literature on critical thinking, touching on the nature of and need for critical thinking and ensuing action, relevant findings of psychological research, the context of thought, issues in test construction, the diagnosis of thinking problems, and the need for research into the teaching of critical thinking.

Norris, S. P., & Ennis, R. H. (1989). Evaluating critical thinking. Pacific Grove, CA: Midwest Publications.

Addresses questions concerning how evaluations of efforts to teach critical thinking should be assessed. Establishes the context for evaluating critical thinking by analyzing what to look for in good critical thinkers. Discusses a variety of tests that teachers can construct to evaluate critical thinking. Explains how interviews with students and classroom observation can provide important and reliable information. Suggests various record-keeping techniques for teachers.

Oliver, D. W., & Shaver, J. P. (1966). Teaching public issues in the high school. Logan, UT: Utah State University Press.

Attacks the prevailing notion that the function of the social studies teacher is simply to teach "the facts" and let the students then form their own "opinions." Provides in-depth analysis of social values and value conflicts in public issues. Describes an experimental curriculum research project which tested the framework for teaching and evaluating public issues in American society.

Onosko, J. (1989). Comparing teachers' thinking about promoting students' thinking. Theory and Research in Social Education, 17(3), 174-195.

Compares the beliefs and theories of teachers outstanding at promoting students' thinking with those of teachers less than outstanding. Finds that the outstanding teachers cited "critical thinking and problem solving" as their highest priority goal and preferred to explore ideas and issues with their students in depth, whereas the less-than-outstanding teachers preferred to expose students to ideas and issues. Concludes that an important connection exists between teachers' thought and practice.

Segal, J. W., Chipman, S. F., & Glaser, R. (Eds.). (1985). Thinking and learning skills, Vol. 1: Relating instruction to research. Hillsdale, NJ: Lawrence Erlbaum Associates.

Summarizes and critiques implemented programs of instruction for thinking and learning skills.

Sternberg, R. J., & Bhana, K. (1986). Synthesis of research on the effectiveness of intellectual skills programs: Snake-oil remedies or miracle cures? Educational Leadership, 44(2), 60-67. (EJ 342 535)

Reviews the research on the effectiveness of five thinking skills training programs: Instrumental Enrichment, Philosophy for Children, Structure-of-Intellect (SOI), Problem Solving and Comprehension: A Short Course in Analytical Reasoning, and Odyssey. Compares and contrasts the content of each program and describes the relative lack of evaluations of the programs.

Swartz, R. J., & Perkins, D. N. (1989). Teaching thinking: Issues and approaches. Pacific Grove, CA: Midwest Publications.

Provides the educational practitioner with an overview of the field of higher order thinking. Seeks to help practitioners think through a number of important questions themselves about the teaching of thinking as represented in a variety of approaches. Indicates what current research shows and what questions remain unanswered on the major issues about the teaching of thinking. Includes advice on lesson design and instructional strategies, approaches to evaluation, and support systems for teachers and schools.

Wigginton, E. (1985). Sometimes a shining moment: The Foxfire experience. Garden City, NY: Anchor Press/Doubleday.

Recounts the history of Foxfire, a magazine started by the author to interest and motivate students in his ninth- and tenth-grade English classes. Includes Wigginton's personal observations as a teacher, explains his philosophy of education, and cites examples of this philosophy at work in several other schools. Describes a sample course and offers suggestions for integrating the techniques into the whole curriculum.

3. SPECIFIC ISSUES

a. ORGANIZATIONAL CONSTRAINTS:

Cuban, L. (1984). Policy and research dilemmas in the teaching of reasoning: Unplanned designs. Review of Educational Research, 54(4), 655-681. (EJ 313 061)

Posits that current methods of organizing, staffing, and governing classrooms retard the teaching of critical thought. Assesses the limited impact of progressive educational reform, an earlier movement for critical thinking. Suggests policy and research directions to improve reasoning instruction.

Goodlad, J. I. (1983). A study of schooling: Some findings and hypotheses. Phi Delta Kappan, 64(7), 465-470. (EJ 278 000)

Reports on study that surveyed principals, teachers, parents, and students and observed 1,016 classes in 38 schools. Presents themes arising from the data that involve how teachers teach, what is taught, goals and expectations assigned schools, and difficulties in changing teaching methods.

McNeil, L. M. (1986). Contradictions of control: School structure and school knowledge. New York: Routledge & Kegan Paul.

Examines four high schools operating under various administrative goals to demonstrate the varying effects on teaching procedures and pupil learning. Indicates that school administrations which overemphasize orderliness and the accumulation of meaningless graduation units cause teachers to control pupils by making work easy with little real learning. Finds that good school administrations, either directly or by the use of strong department heads, can also stress challenging materials and critical thinking.

Powell, A. G., Farrar, E., & Cohen, D. K. (1985). The shopping mall high school: Winners and losers in the educational marketplace. Boston: Houghton Mifflin.

Describes the strategies that Americans have devised to make serious educational demands on students and to graduate almost every student. Observes that in achieving these goals, a high school system has been created in which there are winners and losers. Explores the reasons why so many parents, teachers, and students are satisfied with things as they are despite the fact that so many students are not really learning, and explains why change is so often resisted. Suggests ways for parents and teachers to improve the likelihood that all students will be well-served by American high schools.

Schrag, F. (1987, December). Thoughtfulness: Is high school the place to teach thinking? Education Digest, 16-19.

Questions the idea that teachable "thinking skills" exist. Asserts that the current focus on such skills prevents understanding of why it is difficult to nurture better thinkers. Characterizes good thinkers as those who are reflective and flexible. Claims that the conventional classroom inhibits these characteristics. Recommends that long blocks of time several times a week be set aside for students to participate in other settings, involving them in tasks that demand and reward thoughtfulness.

b. COMPUTERS:

Becker, H. J. (1986). Instructional uses of school computers: Reports from the 1985 national survey. Baltimore, MD: Center for Social Organization of Schools, The Johns Hopkins University. (ED 274 319)

Reports data from a survey of more than 10,000 principals and computer-using teachers in over 2300 U.S. elementary and secondary schools. Concludes that computer use in the schools is on the increase.

Becker, H. J. (1988). The impact of computer use on children's learning: What research has shown and what it has not. Baltimore, MD: Center for Research on Elementary and Middle Schools, Johns Hopkins University. (ED 287 458)

Examines some of the research on computer-based instruction for the major academic subjects in the elementary and secondary grades. Considers three varieties of empirical data - surveys of computer-using teachers, school district program evaluations, and experimental field studies. Reviews particular studies and their findings to assess the value of research in the field in

general. Proposes a model for expanding the empirical basis of the conclusions about the impact of computer approaches on academic achievement.

Johnson, R. T., Johnson, D. W., & Stanne, M. B. (1986). Comparison of computer-assisted cooperative, competitive, and individualistic learning. American Educational Research Journal, 23, 382-392.

Compares the effects of computer-assisted cooperative, competitive, and individualistic instruction on achievement, student-student interaction, and attitudes. Finds that computer-assisted cooperative instruction promoted greater quantity and quality of daily achievement, more successful problem-solving, more task-related student-student interaction, and increased the perceived status of female students.

Lesgold, A., & Reif, F. (1983). Computers in education: Realizing the potential **(Chairmen's Report of a Research Conference). Washington, DC: U.S. Government Printing Office. (ED 235 784)**

Includes papers from the U.S. Department of Education's research conference "Computers in Education: Realizing the Potential" held at the University of Pittsburgh, November, 1982. Emphasizes the effects of computers on learning, motivation, cognition, and learning theory. Proposes a variety of research activities to provide a basis for achieving the potential of computers in the classroom through refining basic principles for computer-enhanced instruction.

Patterson, J. H., & Smith, M. S. (1986). The role of computers in higher-order thinking. In J. A. Culbertson & L. L. Cunningham (Eds.), Microcomputers and education (85th Yearbook of the National Society for the Study of Education, Part I) **(pp. 81-108). Chicago: University of Chicago Press.**

Examines the policies of 20 states aimed at encouraging computer use in schools. Identifies these factors as probable conditions for successful policy implementation: 1) a match between educational philosophy and computer use, 2) technical knowledge about computers and how to integrate them into content areas, and 3) the adaptability of local schools and state policymakers. Suggests that expectations about the actual impact of the more ambitious policies should be kept modest.

Pogrow, S. (1990). A Socratic approach to using computers with at-risk students. Educational Leadership, 47(5), 61-66.

Presents a Socratic method for using computers with at-risk students. Demonstrates why this approach to learning is particularly effective with low-achieving students.

D. QUALITY OF TEACHERS' WORK LIVES PROJECT

1. STUDIES OF TEACHERS' WORK LIVES

Bacharach, S. B., Bauer, S. C., & Shedd, J. B. (1986). The learning workplace: The conditions and resources of teaching. New York: Organizational Analysis and Practice of Ithaca, New York. (ED 279 614)

Presents evidence showing that the conditions of work have an impact on both teacher satisfaction and commitment to teaching as a career. Concludes that teachers are less satisfied when: 1) they experience conflictual expectations about their jobs; 2) the teaching role is undefined; 3) administrators are critical rather than supportive; 4) opportunities for decision-making are limited; 5) they are provided with insufficient resources or resources of inferior quality. Recommends further reform efforts.

Boston Women's Teachers' Group. (1983). Teaching: An imperilled profession. In L. S. Shulman & G. Sykes (Eds.), Handbook of teaching and policy (pp. 261-299). New York: Longman.

Reports interviews with public elementary school teachers who discuss the effects of isolation and burnout in teaching. Cites detailed experiences of: 1) confrontations with administrators in both teacher/student evaluations, 2) concern over labeling students with grade evaluations, 3) conflicts with the school as an institution, 4) failure to receive support for inventive classroom techniques, and, 5) concern over staff reductions and declining enrollments. Suggests the need for teachers to be heard by administrators and for teachers to recognize how the structure of the school has control over both classroom teaching and student/teacher relationships.

Britzman, D. P. (1986). Cultural myths in the making of a teacher: Biography and social structure in teacher education. Harvard Educational Review, 56(4), 442-456.

Maintains that student teachers need to counter the dominant cultural view of the teacher as rugged individualist with an understanding of how the interaction of time, place, people, ideas, and personal growth contributes to the process of professional development. Explores what prospective secondary teachers learn about the work of teachers as they combine their own experience in compulsory education and teacher education with their student teaching practice. Argues that the underlying values which coalesce in one's institutional biography, if unexamined, propel the cultural reproduction of authoritarian teaching practices and naturalize the contexts which generate such a cycle. Identifies three recurring cultural myths: 1) everything depends on the teacher; 2) the teacher is the expert; and 3) teachers are self-made.

Conley, S. C., Bacharach, S. B., & Bauer, S. (1989). The school work environment and teacher career dissatisfaction. Educational Administration Quarterly, 25(1), 58-81.

Investigates the organizational work characteristics that predict teachers' career dissatisfaction. Identifies these characteristics as role ambiguity, routinization, a lack of administrator appreciation of teachers' activities, and a critical attitude toward teachers on the part of administrators. Finds differences between the elementary and secondary level regarding the importance of negative supervisory behavior, the certainty and rationality of the promotion process, and classroom environmental factors.

Corcoran, T. B., Walker, L. J., & White, J. L. (1988). Working in Urban Schools. Washington, DC: Institute for Educational Leadership.

Reports the results of a study on the working conditions in 31 schools in five urban school districts. Finds that in most of these schools, working conditions of teachers are bleak and would not be tolerated in other professions. Suggests changes to improve the environment for urban teachers.

Elbaz, F. (1983). Teacher thinking: A study of practical knowledge. London: Croom Helm.

Addresses the ways in which teaching, curriculum development, and teacher growth and change are seen by scholars and policymakers within education. Reports an analysis of the insights and ideas of one teacher as they emerged in a series of long interviews. Focuses on the content of teachers' practical knowledge and how this knowledge is applied.

Firestone, W. A. & Wilson, B. L. (1986). Management and organizational outcomes: The effects of approach and environment in schools. Philadelphia, PA: Research for Better Schools, Inc.

Explores the importance of environmental forces and managerial action in schools using data from 107 public schools. Finds that the environmental variable is the student body's average socioeconomic status which has been shown to be highly correlated with school achievement. Indicates that sharing influence and managerial support for workers does increase productivity even when the effect of status is controlled.

Goodlad, J. I. (1984). A place called school: Prospects for the future. New York: McGraw-Hill.

Presents the findings of an eight-year research project on the current state of schooling. Calls for total change in each school's climate based on what its community wants. Recommends lowering the mandatory school age to 4 to 16, a general education that is 70% to 80% common for all students, elimination of ability grouping and tracking, emphasis on equality of access to knowledge, smaller schools, and teaching teams headed by super tutors.

Grant, G. R. (1983). The teacher's predicament. Teacher College Record, 84(3), 593-609. (EJ 296 277)

Maintains that teacher burnout results from the burden on individual teachers for establishing authority in a society where the teachers' customary sources of social authority such as social status, the backing of the law and parents, and the existence of a generalized set of expectations and norms within a school have all declined.

Lortie, D. C. (1975). Schoolteacher: A sociological study. Chicago, IL: University of Chicago Press.

Presents the first full-length study of teachers within the context of the sociology of occupations, based on empirical research. Discusses selective recruitment of teachers, their socialization into the occupation, and quotes extensively from interviews with teachers in the Boston area and in Dade County, Florida on the rewards and difficulties of teaching. Describes the special role of women in the profession. Characterizes American teachers as conservative, individualistic, and oriented to the present. Provides suggestions for practical actions and further research ideas.

Lortie, D. C. (1986). Teacher status in Dade county: A case of structural strain? Phi Delta Kappan, 67(8), 568-575. (EJ 334 267)

Analyzes findings of a 1984 teacher attitude survey (from Dade County, Florida) showing declining job satisfaction and declining extrinsic rewards for a more experienced, better-educated work force than 20 years ago. Examines factors damaging teacher status, including outmoded administrative structures limiting teacher participation. Suggests sharing and inservice education as partial solutions.

McLaughlin, M. W., Pfeifer, R. S., Swanson-Owens, D., & Yee, S. (1986). Why teachers won't teach. Phi Delta Kappan, 67, 420-426.

Outlines a broad range of organizational features that minimize teachers' ability to teach. Finds that the dominating motivational force for teachers is the reward found in promoting students' growth and development, but that the conditions teachers work under often make teachers function less effectively.

McNeil, L. (1986). Contradictions of control: School structure and school knowledge. New York: Routledge and Kegan Paul.

Examines four high schools operating under various administrative goals to demonstrate the varying effects on teaching procedures and pupil learning. Indicates that school administrations which overemphasize orderliness and the accumulation of meaningless graduation units cause teachers to control pupils by making work easy with little real learning. Finds that good school administrations, either directly or by the use of strong department heads, can also stress challenging materials and critical thinking.

McPherson, G. H. (1972). Small town teacher. Cambridge, MA: Harvard University Press.

Reviews the author's doctoral studies involving a sociological examination of her fellow elementary school teachers in a small New England town. Contends that schools teach competition, orderliness, failure, and routine. Describes the teachers as suffering from frustration, tension, and discouragement due to dissatisfaction with the failure to attain goals. Examines the teachers' role expectations and realizations.

Metz, M. H. (1978). Classrooms and corridors. Berkeley, CA: University of California Press.

Analyzes interactions of teachers, students, and administrators within two junior high schools. Contends that each group plays a role in the structure of the authority within classrooms and that while teachers may have a formal claim for authority, students can challenge or limit that claim. Presents observations of two newly desegregated schools in which teachers who had formerly taught homogeneous classes were required to teach students who were socioeconomically, racially, and educationally diverse. Focuses on the means of authority and control in the public schools.

Metz, M. H. (1987). Teachers' pride in craft, school subcultures, and societal pressures. Educational Policy, 1(1), 115-134.

Explores the faculty culture of one high school. Demonstrates how such a culture can grow spontaneously without being formally encouraged or consciously recognized by the participants and yet have profound effects on teachers' thought and behavior. Shows how this particular faculty culture was centered on teachers' attempts to maintain their pride in their abilities as good teachers under difficult circumstances. Suggests that this is a typical response of faculties that feel themselves unappreciated or under siege. Maintains that policy-makers must approach the development of faculty subcultures as both potential obstacles to, and potential resources for, reform efforts.

Metz, M. H. (1990). How social class differences shape the context of teachers' work. In M. McLaughlin & J. Talbert (Eds.), The secondary school workplace (pp. 40-107). New York: Teachers College Press.

Presents a study of teachers in eight schools of varied social class. Identifies important social influences that shape high school teachers' perspectives, goals, experiences, and practices. Contends that teachers' lives differ significantly with the social class of the community surrounding a school and with the aspirations and achievements of students, which at the high school level are strongly affected by social class. Shows how influences from teachers' own background and from administrators' and teachers' individual and collective actions within the school modify the effects of community pressures on the school. Finds that teachers who teach at schools of differing social class are perceived by their peers in both their professional and private lives as placed in a social and an academic hierarchy. Finds that the only teachers at working class schools to escape the drain of low status upon their morale were those who thought about their work as service, either in conveying an intellectual tradition they found exciting or in assisting young people to whom they were for some reason committed enough to be unconcerned by their status and by their sometimes resistant behavior. Concludes that in order to foster engagement of students and teachers in academic learning, educational reform must set policy that will weaken the stranglehold of ranking and credentialing for future educational slots on secondary education.

Palonsky, S. B. (1986). 900 shows a year: A look at teaching from a teacher's side of the desk (1st ed.). New York: Random House.

University professor returns to public school teaching and reflects on his experiences as a social studies teacher. Discusses the isolation of classroom teachers and the frustrations of coping with the organization. Offers insights for administrators interested in remaining sensitive to teacher and student needs.

Powell, A. G., Farrar, E., & Cohen, D. K. (1985). The shopping mall high school: Winners and losers in the educational marketplace. Boston: Houghton Mifflin.

Describes the strategies that Americans have devised to make serious educational demands on students and to graduate almost every student. Observes that in achieving these goals, a high school system has been created in which there are winners and losers. Explores the reasons why so many parents, teachers, and students are satisfied with things as they are despite the fact that so many students are not really learning, and explains why change is so often resisted. Suggests ways for parents and teachers to improve the likelihood that all students will be well-served by American high schools.

Purkey, S. C., & Rutter, R. A. (1987). High school teaching: Teacher practices and beliefs in urban and suburban public schools. Educational Policy, 1(3), 375-393.

Presents two profiles of self-reported teacher attitudes and practices, one for all public secondary school teachers and a second comparing secondary school teachers in two widely differing school contexts. Concludes that while there appears to be a great deal of sameness in secondary school teacher attitudes and practices, there is also considerable variation. Suggests that this variation is not random and that teachers in urban-minority-disadvantaged (UMD) schools engage in different practices, hold different beliefs, and encounter a different work environment than do teachers in suburban-white-advantaged (SWA) schools. Recommends that the first step in improving inner-city schools is changing policies that make these schools difficult workplaces.

Raphael, R. (1985). The teacher's voice: A sense of who we are. Portsmouth, NH: Heineman.

Explores the life of the classroom teacher through a series of interviews of elementary and secondary teachers. Suggests that a career in teaching does not adequately evolve over time. Indicates that the profession appears unable to counteract the cumulative fatigue resulting from daily tensions and institutional pressures, and concludes that the remedy for "teacher burnout" is the development of teaching jobs that are flexibly structured to permit greater professional growth and personal well-being.

Rosenholtz, S. J. (1985). Needed resolves for educational research. National Center for Education Statistics, Washington, DC. (ED 272 563)

Notes that while recent reports on education have sounded an alarm about the status of the nation's teaching corps, policymakers have little knowledge about the attributes of effective teachers or the organizational and occupational influences on teaching excellence. Surveys the research literature and provides the conceptual underpinnings of the knowledge about effective school practices that bear directly on the quality of the teacher work force. Analyzes current policy decisions and their ability to effect positive changes. Includes extensive bibliography.

Rosenholtz, S. J. (1986). Organizational determinants of teacher commitment. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Discusses teacher commitment as a vital role in the success of the school. Stresses a need to understand why highly motivated teachers leave the work force or cease contributing to the school in a meaningful way. Examines attendance, retention, and job satisfaction as well as the effects of teacher stress on staying in the profession. Concludes that the school as a work place must produce more teaching rewards than frustrations in order to improve the teaching corps.

Sarason, S. (1982). The culture of the school and the problem of change (2nd ed.). Boston: Allyn & Bacon.

Discusses how schools work, why they work, and what it is about them that makes changing them so difficult. Shows how students, teachers, and principals try to reconcile their ideal expectations with the actualities and possibilities in the prevailing culture of the school.

Wolcott, H. F. (1977). Teachers vs. technocrats: An educational innovation in anthropological perspective. Eugene, OR: Center for Educational Policy and Management.

Draws attention to the logical connection between past and current problems in educational innovation and the need to decode inside school processes. Presents a methodological and analytical connection between decoding inside school processes and ethnographic method and related social science constructs.

2. PROPOSALS FOR REFORM:

Branscomb, L. et al. (1986). A nation prepared: Teachers for the 21st century (The report of the Task Force on Teaching as a Profession). New York: Carnegie Forum on Education and the Economy. (ED 268 120)

Argues that if the United States is to have a vibrant democracy, avert the growth of a permanent underclass, and have a high-wage economy, schools must graduate the vast majority of students with achievement levels long thought possible only for a privileged few. Presents an integrated plan for restructuring the schools and redefining teaching as a career.

The Holmes Group, Inc. (1986). Tomorrow's teachers: A report of the Holmes Group. East Lansing, MI: Author. (ED 270 454)

Reports on the recommendations of The Holmes Group, a consortium of education deans and chief academic officers from the major research universities in each of the fifty states. Outlines the group's goals for the reform of teacher education. Suggest ways to meet the goals.

Johnson, S. M. (1984). Merit pay: A poor prescription for reform. Harvard Educational Review, 54(2), 175-185. (EJ 299 043)

Asserts that merit pay does not take into account the motivational needs of teachers or the interdependent nature of schools. Concludes that school leaders should consider the practices of successful corporations that emphasize group goals over individual incentives.

Newmann, F. M., Rutter, R. A., & Smith, M. S. (1989). Organizational factors that affect school sense of efficacy, community, and expectations. Sociology of Education, 62, 221-238.

Contends that the alienation of teachers in high schools can be reduced through improvements in school organization. Explores the impact of ten organizational features on efficacy, community, and expectations in 353 public high schools. Finds that school organizational features have a major influence on all three teacher-climate variables. Finds the most powerful organizational effects to be students' orderly behavior, the encouragement of innovation, teachers' knowledge of one another's courses, the responsiveness of administrators, and teachers helping one another.

Ornstein, A. C. (1988). The changing status of the teaching profession. Urban Education, 23(3), 261-279.

Discusses seven recent trends that promote greater teacher professionalism: professional practice boards, teacher centers, mediated entry, staff development, researcher-teacher collaboration, merit pay, master teachers, and new alliances.

Rosenholtz, S. (1985). Political myths about education reform. Phi Delta Kappan, 66(5), 349-355. (EJ 311 709)

Analyzes six myths about education and explores their justifications. Finds that the underlying assumptions are unsupported by educational research.

Tom, A. R. (1984). Teaching as a moral craft. New York: Longman.

Describes and critiques the concept of teaching as an applied science. Introduces and develops the concept of teaching as a moral craft and compares it with other common images of teaching. Applies the moral craft metaphor to issues of educational research and practice.

Weis, L., Altbach, G. G., Kelly, G. P., Petrie, H. G., & Slaughter, S. (1989). Crisis in teaching: Perspectives on current reforms. Albany, NY: State University of New York Press.

Examines the definition of "teaching crisis," the evidence for the existence of a crisis, reforms proposed to solve it, and the possible effects of proposed reforms. Concludes that no simple answer can be found to the problems that beset teaching.

3. STUDIES FROM OTHER COUNTRIES OF TEACHERS' WORK LIVES:

Ball, S. J. (1981). Beachside comprehensive: A case study of secondary schooling. Cambridge, U.K.: Cambridge University Press.

Presents a case study of a single co-educational school in Great Britain. Examines the processes of comprehensive schooling, including the dynamics of selection, socialization, and change within the school, and how these processes are experienced and dealt with by students and teachers. Addresses the impact of selective grouping upon the pupils' experiences of schooling and the introduction of mixed ability grouping in the school.

Connell, R. W. (1985). Teachers' work. London: George Allen and Unwin.

Discusses the debate of social inequality and the future of public schools through teachers' lives, teachers' work, and teachers' worlds. Describes six case studies of teachers' lives in Australia and examines the nature of the labor process, division of labor, and the pattern of control and autonomy in the workplace. Describes developments in the Australian system that run counter to those proposed in Britain in the attempts to solve problems among working class young people.

Eggleston, J. (Ed.). (1979). Teacher decision-making in the classroom. London: Routledge and Kegan Paul.

Gathers together papers on the topic of classroom decision-making by a variety of British scholars. Explores the factors involved at the level of daily classroom activity and at the ideological level underpinning teacher decision-making. Outlines avenues for further research.

Hargreaves, A. (1984). Experience counts, theory doesn't: How teachers talk about their work. Sociology of Education, 57, 215-231. (EJ 312 750)

Finds that when making collective educational decisions, junior high school teachers drew only on personal classroom experiences. Suggests that this exclusion of nonclassroom experience, e.g., parenting, reveals not so much an unawareness of other perspectives but a shared cultural valuation of classroom experience to the exclusion of virtually all other kinds of experience.

Hargreaves, A., & Woods, P. (Eds.). (1984). Classrooms and staffrooms. Milton Keynes, U.K.: Open University Press.

Employs ethnographic methods to investigate the world of teachers. Traces the history of the ethnographic approach to the study of education. Brings together examples of some of the most important pieces of British work representing theoretical perspectives such as the interactionist, ethnomethodological, anthropological, and Marxist points of view. Topics covered include teachers and classroom management, teachers as differentiators, and teacher cultures and careers.

Hargreaves, D. (1982). The challenge for the comprehensive school. London: Routledge and Kegan Paul.

Proposes eliminating existing systems of testing and tracking and instituting a core curriculum organized around integrative or community studies and expressive arts for students between the ages of 11 and 15. Combines anecdotal evidence with sociological theory. Critiques the narrowly-stratified British education system.

Woods, P. (1980). Teacher strategies. London: Croom Helm.

Includes collected papers from a conference held at St. Hilda's College, Oxford, in 1978. Examines teacher intentions, situational forces, and societal influences embodied in capitalism and social class. Comments on varying facets of the interactionist or Durkheim/Marx themes.

Woods, P. (1983). Sociology and the school. London: Routledge and Kegan Paul.

Reviews the author's work on the interactionist approach to education, defined as an approach that avoids the use of a theoretical framework in order to elicit a true picture of school life. Describes school culture and how schools are places of negotiation in both learning and disciplinary situations. Claims that interactionist insights have improved schools by providing information that can lead to better teaching, less conflict, more understanding of one's teaching career, and greater cognizance of the inequalities of school and society.

Young, R. E. (1980). The controlling curriculum and the practical ideology of teachers. Australian and New Zealand Journal of Sociology, 16(3), 33-40. (EJ 249 494)

Observes that in Australia, those who decide the content of the official curriculum seem unwilling to delegate a significant amount of their power to teachers because of a need to exert control over pluralistic tendencies in curriculum in a society in which many different political, ethnic, and religious groups seek to influence it and because control over content is a major means of social control over conduct. Analyzes this link between control and conduct and argues that it distorts the cognitive process, reducing opportunities to practice higher-order cognitive skills.

Young, R. E. (1981). The epistemic discourse of teachers: An ethnographic study. Anthropology and Education Quarterly, 12(2), 122-144. (EJ 249 494)

Explores the epistemologies of several groups of secondary school teachers. Finds that teachers' epistemologies were complex and diverse but that the major issues for most teachers centered around whether science was the epitome of human knowledge or whether more personal, intuitive access to knowledge was as important or even more important than the scientific approach.

4. SPECIAL TOPICS

a. TEACHER COLLEGIALITY AND COLLABORATION:

Cohen, E. G. (1981). Sociology looks at team teaching. Sociology of Education and Socialization, 2, 163-193.

Discusses collaborative relationships among elementary teachers. Finds critical links between teaming and change in the evaluation process, change in the technology, and even change in the governance structure of the school. Suggests that though teaming is highly unstable and informal, it can be used as a means of alleviating teacher isolation from colleagues and administration. Offers a sociological perspective to teacher collaboration and the problems experienced by teachers trying to work together under present organizational conditions.

Copeland, W. D., & Jamgochian, R. (1985). Colleague training and peer review. Journal of Teacher Education, 36(2), 18-21. (EJ 319 219)

Argues that teachers need to be trained in collegiality during the teacher preparation program. Describes the benefits of collegial observation and interaction. Attributes the failure of the open school movement to foster collegiality to the lack of teacher training for such work. Presents a case study of how one teacher education program inculcates collegial behavior.

Cusick, P. (1981). A study of networks among professional staffs in secondary schools. Educational Administration Quarterly, 17(3), 114-138. (EJ 256 330)

Studies the staff networks and personal "fields" (each person's ego-centered network) in two large secondary schools in a northern metropolitan area. Finds that teachers' personal fields are important elements in the creation of the schools' curricula.

Doyle, W., & Olszewski, R. W. (1975). Colleague interaction and teacher performance. Education, 95, 276-279.

Analyzes the colleague interaction network as a factor influencing teacher performance and as a target for staff development. Concludes from a review of recent studies that structural and attitudinal barriers restrict meaningful task-related colleague interaction among teachers. Suggests that it is possible to modify the amount and quality of colleague interaction in schools and that increased interaction does affect teaching practices.

Johnson, D. W., & Johnson, R. T. (1987). Research shows the benefits of adult cooperation. Education Leadership, 45(3), 27-30.

Reveals the summary findings from a meta-analysis of research comparing the relative effectiveness of cooperative, competitive, and individualistic relationships among teachers. Concludes that cooperation among adults promotes achievement, positive interpersonal relationships, social support, and self-esteem. Suggests how cooperative groups should be organized for maximum effectiveness.

Little, J. W. (1982). Norms of collegiality and experimentation: Workplace conditions of school success. American Educational Research Journal, 19(3), 325-340.

Reports findings of an ethnographic study of organizational characteristics conducive to continued "learning on the job" by teachers at six urban elementary and secondary schools. More successful schools showed patterned norms of staff interaction: teachers valued and engaged in norms of collegiality and experimentation leading to growth in knowledge and practice.

Little, J. W. (1987). Teachers as colleagues. In V. Koehler (Ed.), Educator's handbook: Research into practice (pp. 491-518). New York: Longman.

Investigates the value of collegiality to a school system and examines schools that deny its importance. Suggests that since student learning may be affected by teacher collaboration, school administrators should encourage collaboration as: 1) a method for schools to examine and test new ideas/materials, 2) a means to ease turnover, 3) a reliever of teacher isolation, and 4) a way to recognize teacher accomplishments.

Romberg, T., & Pitman, A. (1985). Annual Report to the Ford Foundation: The Urban Mathematics Collaborative Project Program (Report 86-1). Madison, WI: Wisconsin Center for Education Research, University of Wisconsin. (ED 272 366)

Reports on a project designed to help establish support networks linking secondary mathematics teachers and their colleagues in business, government, higher education and industry. Describes 1985 activities of seven collaborative projects and reports gains in confidence and status among participating teachers.

Rosenholtz, S. J. (1985). Effective schools: Interpreting the evidence. American Journal of Education, 93(3), 352-388.

Develops a theoretical context for understanding the evidence on effective schools. Sees the effectiveness of teachers as the main factor in promoting the effectiveness of schools.

Demonstrates how principals in these schools foster good teaching and that personal motives of staff members are congruent with the goals of the organization.

Rosenholtz, S. J., & Kyle, S. J. (1984). Teacher isolation: Barrier to professionalism. American Educator, 8(4), 10-15.

Stresses the importance of professional dialogue among teachers. Maintains that without such dialogue, student learning is jeopardized, teachers have little opportunity to develop common goals and the means to attain them, and the instructional program within a school becomes fragmented into as many pieces as there are teachers. Argues for the establishment of collaborative settings within schools because they promote the belief that teachers become more effective instructionally through analysis, evaluation, and experimentation with their colleagues. Relates collaboration to professionalism.

Rossman, G. B. (1985). Studying professional cultures in improving high schools. Paper presented at the annual meeting of the American Educational Research Association, Chicago. (ED 256 743)

Presents a conceptual framework for studying the processes of cultural transformation, focusing on teachers whose beliefs, values, and behaviors affect student learning. Concentrates on schools known to be improving in order to increase knowledge about how cultural changes lead to school improvement. Defines and elaborates upon the concept of culture, identifying key assumptions about the cognitive and symbolic aspects of culture. Concludes with a description of five cultural themes: 1) collegiality of faculty, 2) relationships within the community, 3) purposes and expectations of school leadership, 4) how work is conducted in the school, and 5) the knowledge base used for teaching by the school's faculty and administrators.

b. TEACHER STRESS AND TEACHER LOAD:

Applebee, A. (1978). A survey of teaching conditions in English 1977. Urbana, IL: National Council of Teachers of English, and ERIC. (ED 151 796)

Based on a 1977 NCTE-sponsored study of English instruction in secondary schools. Describes findings on class size, teaching load, and other elements related to the teaching of English.

Bacharach, S. B., Bauer, S. C., & Conley, S. C. (1986). Organizational analysis of stress: The case of elementary and secondary schools. Work and Occupations, 13(1), 7-32. (EJ 332 575)

Presents an organizational analysis of stress in 42 elementary school organizations and 45 secondary school organizations. Notes that the predictors of stress differ for elementary school organizations and secondary school organizations.

Bamburg, B. (1977). Report of a survey of the workload of California teachers of English. Redlands, CA: California Association of Teachers of English. (ED 162 331)

Reports findings of a 1977 CATE-sponsored survey of public and private secondary school English teachers. Concludes that the average English teacher's work week is approximately 63

hours. Suggests that student loads must be substantially reduced to permit adequate composition instruction.

Beasley, C. R., Myette, B. M., and Serna, B. (1983). On-the-job stress and burnout: Contributing factors and environmental alternatives in educational settings. Paper presented at the annual meeting of the American Educational Research Association, Montreal, April 11-14. (ED 242 727)

Reviews literature on job-related stress and 'burnout' among teachers. Includes summary tables of 1970-1982 teacher stress studies. States that inconsistent definitions and diversity of measures contribute to the lack of uniform findings. Finds these factors consistently demonstrating a relationship with stress: role conflict, job satisfaction, and role expectations. Attempts to determine the extent and sources of stress and burnout among elementary and secondary teachers. Finds that both regular and special education teachers exhibit moderate stress levels and that what teachers perceive as helpful, administrators consider ineffective and unfeasible.

Coates, T. J., & Thoresen, C. E. (1976). Teacher anxiety: A review with recommendations. Review of Educational Research, 46(2), 159-184.

Review of pre-1975 research on teacher anxiety. Includes summary table of empirical studies. Concludes that anxiety is frequent among beginning and experienced teachers and that it may have detrimental effects on teaching performance and student achievement.

Dworkin, A. G. (1987). Teacher burnout in the public schools: Structural causes and consequences for children. Albany, NY: SUNY Press.

Examines the educational consequences of teacher burnout and turnover. Identifies these factors, among others, as responsible for teacher burnout and turnover: 1) low salaries, 2) decline in the public's confidence in public education, 3) violence on school campuses, and 4) desegregation. Suggests that central among the forces behind teacher alienation, burnout, and turnover is a basic contradiction between the training of public school teachers in colleges of education and the experience of teaching in urban public schools. Concludes that an enlightened administrative style on the part of the principal can do much to mitigate the negative aspects of stress and teaching, and that the majority of students are not adversely affected by a burned-out teacher.

Farber, B. A. (1984). Teacher burnout: Assumptions, myths, and issues. Teachers College Record, 86(2), 321-337.

Examines issues and research on teacher stress and burnout and defines burnout as the final stage in a series of unsuccessful attempts to cope with negative stress conditions - unremitting stress. Reports findings of a study of burnout among elementary and secondary teachers which indicate that teacher burnout is a serious problem. Suggests that some critical and socially damaging consequences of current conditions are not yet apparent.

Friesen, D., & Williams, M. J. (1985). Organizational stress among teachers. Canadian Journal of Education, 10(1), 13-34.

Presents a study of Canadian teachers' perceptions of major sources of work-related stress and an assessment of the degree these identified stressors accounted for overall job stress. Indicates

that four job-related factors accounted for a significant portion of overall work-related stress: role overload, relationships with students, work load, and relationships with colleagues.

Kyriacou, C., & Sutcliffe, J. A. (1978). A model of teacher stress. Educational Studies, 4(1), 1-6.

Offers a definition and model of teacher stress that incorporates current approaches to occupational stress. Views teacher stress as a response syndrome of negative emotional states mediated by perceived threats to self-esteem or well-being and by coping mechanisms activated to reduce the apparent threat.

Lortie, D. C. (1975). Schoolteacher: A sociological study. Chicago: University of Chicago Press.

Presents the first full-length study of teachers within the context of the sociology of occupations, based on empirical research. Discusses selective recruitment of teachers, their socialization into the occupation, and quotes extensively from interviews with teachers in the Boston area and in Dade County, Florida on the rewards and difficulties of teaching. Describes the special role of women in the professions. Characterizes American teachers as conservative, individualistic, and oriented to the present. Provides suggestions for practical actions and further research ideas.

Mier, M. (1984). Class size and writing instruction. Washington, DC: National Institute of Education. (ED 250 689)

Reports on the relationship between class size and writing achievement. Reviews the contradictory findings of class size research and examines the results of meta-analyses of these studies and subsequent responses. Explores the implications of class size research for writing instruction and what administrators and policymakers can do to reduce class size and teacher workload for composition instruction.

Schwab, R. L., & Iwanicki, E. F. (1982). Perceived role conflict, role ambiguity, and teacher burnout. Educational Administration Quarterly, 18(1), 60-74.

Examines the relationship of role conflict and role ambiguity as each relates to teacher burnout at the elementary and secondary levels. Indicates that a direct relationship exists between perceived role conflict and role ambiguity and feelings of emotional exhaustion and depersonalization that are associated with teacher burnout.

c. ADMINISTRATIVE STRATEGIES TO AFFECT TEACHERS' WORK:

Bredeson, P. V. (1989). Redefining leadership and the roles of school principals: Responses to changes in the professional worklife of teachers. High School Journal, 73(1), 9-20.

Examines the effects of teacher empowerment on the multiple roles of the school principal. Identifies nine factors important for successful teacher empowerment: 1) the use of the language of shared governance and empowerment, 2) a readiness for professional growth and empowerment, 3) the superintendent's leadership in empowerment, 4) time as a key resource for empowerment, 5) boundary spanning for school principals, 6) enhancement of teachers' and principals' professional image, 7) a voice for teachers, 8) shared professional thinking, and 9) dealing with power through empowerment.

Bredeson, P. V., Fruth, M. J., & Kasten K. L. (1983). Organizational incentives and secondary school teaching. Journal of Research and Development in Education, 16(4), **52-58. (EJ 283 335)**

Investigates the degree to which organizational incentives keep in the profession secondary school teachers who are committed to teaching and whose primary reasons for staying are related to students, curriculum, and classroom procedures.

Firestone, W. R., & Wilson, B. L. (1985). Using bureaucratic and cultural linkages to improve instruction: The principal's contribution. Educational Administration Quarterly, 21(2), **7-30. (EJ 318 294)**

Contends that principals can influence teachers and instructional behavior by working through linkage mechanisms within the organizational structure of the school. Identifies two types of linkages: bureaucratic and cultural. Suggests that principals have access to linkages of both kinds and that by using linkages effectively, they can generate a common purpose in their schools.

Guskey, T. (1984). The influence of change in instructional effectiveness upon the affective characteristics of teachers. American Educational Research Journal, 21(2), **245-259. (EJ 303 647)**

Finds that teachers who experienced positive change in the learning outcomes of their students after an inservice workshop on mastery learning expressed increased personal responsibility for both positive and negative student outcomes and increased affect toward teaching. Points out that the teachers expressed decreased confidence in their teaching abilities.

Lieberman, A., & Miller, L. (1978). The social realities of teaching. Teachers College Record, 80(1), **54-68. (EJ 195 496)**

Maintains that to achieve a thorough understanding of the social realities of teaching, it is necessary to combine a social systems awareness of teaching as a profession with a description of the daily routine of teaching as an activity based on experience. Presents a framework for utilizing this understanding in staff development and school improvement programs.

Lipham, J. (1983). Leadership and decision making for effective educational change. The Executive Review, 3(8). **Published by the Institute for School Executives, The University of Iowa. (ED 233 461)**

Presents the major results from 13 studies of the Project on the Administration and Organization for Instruction staff at the University of Wisconsin-Madison in cooperation with over 100 schools. Demonstrates that principals, the key educational leaders within schools, achieve positive outcomes by balancing structural/facilitative and supportive/participative behavior. Shows that the content of the issue to be decided determines who is involved and to what extent, before, during, and after a decision is made. Describes the interrelationships of leaders and staff in implementing planned educational change for school effectiveness.

Rosenholtz, S. (1986). Teacher commitment: District level influences. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Investigates teacher commitment as affected by school district office actions. Finds that variance in commitment reflects the teacher's task autonomy, opportunities for learning, teacher certainty about student capabilities, and teacher reward. Suggests that districts which mobilize resources in pursuit of organizational goals have a higher teacher commitment to the work place.

E. STRATIFICATION OF LEARNING OPPORTUNITIES PROJECT

1. TRADITIONAL AND NON-TRADITIONAL GROUPING STRATEGIES (includes ability grouping, tracking, non-graded programs, task grouping):

Alexander, K. L., & Cook, M. A. (1982). Curricula and coursework: A surprise ending to a familiar story. American Sociological Review, 47, 626-640.

Proposes a conceptual model of curriculum and course work influences on high school track placements. Findings challenge the view of differentiated curricula as an effective organizational intervention. The authors conclude that high school studies of academic achievement processes simply reflect achievement trajectories set in motion in earlier years.

Gamoran, A. (1987). The stratification of high school learning opportunities. Sociology of Education, 60(3), 135-155.

Suggests that students' opportunities to learn may be stratified both between and within schools: Schools serving a more affluent and able clientele may offer more rigorous and enriched programs of study, and students in college-preparatory curricular programs may have greater access to advanced courses within schools. Tests this notion with a longitudinal, nationally representative sample of public school students from the High School and Beyond data base. Shows few between-school effects of school composition and offerings but important within-school influences of curriculum tracking and course-taking. Concludes that the difference in achievement between tracks exceeds the difference in achievement between students and dropouts, suggesting that cognitive skill development is affected more by where one is in school than by whether or not one is in school.

Gamoran, A. (1989). Measuring curriculum differentiation. American Journal of Education, 97(2), 129-143.

Advocates a quantitative sociological approach to measuring curriculum differentiation and its effects. Distinguishes between the social organization of schools, which includes such arrangements as the grouping and tracking of students and the instructional processes that occur within classes. Contends that because organization and instruction can vary independently, it is necessary to examine the academic experiences that presumably link students' outcomes with their positions in the school stratification system. Calls for combining survey with observational methods to examine measure of track organization and instructional activities that are sensitive to conditions that differ across schools.

Gamoran, A. (1990). Instructional organizational practices that affect equity. In H. P. Baptiste, Jr., J. E. Anderson, J. Walker de Felix, and H. C. Waxman (Eds.), Leadership, equity, and school effectiveness (pp. 155-172). Newbury Park, CA: Sage Publications.

Explores the implications for educational equity of curriculum tracking or ability grouping. Compares ability grouping to other forms of instructional organization. Points out that it is not just how students are arranged, but the experiences that they have in class that makes a difference in achievement. Concludes that improvement of the quality of low-track instruction would both raise average achievement and reduce inequality of results, but that whether this goal can be accomplished has yet to be demonstrated. Suggests that cooperative learning may be a useful technique for maintaining high achievement for the strongest students in heterogeneous classes.

Gamoran, A., & Berends, M. (1986). The effects of stratification in secondary schools: Synthesis of survey and ethnographic research. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin. (ED 288 855, EJ 371 422)

Uses ethnographic research to interpret the findings of survey analyses, and employs survey studies to assess the causal implications and generalizability of ethnographic findings relative to stratification in secondary schools. Criticizes survey research for ambiguity concerning the measurement of within-school stratification and for the lack of attention to the mechanisms through which the effects of grouping and tracking occur. Sees ethnographic research as limited by an inability to demonstrate the significance of between-track differences in social and instructional conditions, and by the failure to disentangle track effects from the influence of social class and other pre-existing circumstances. Suggests longitudinal, quantitative research that is sensitive to the actual dimensions of stratification in schools, and to classroom conditions and processes that vary across levels of the academic hierarchy.

Gamoran, A., & Mare, R. D. (1989). Secondary school tracking and educational inequality: Compensation, reinforcement, or neutrality? American Journal of Sociology, 94(5), 1146-1183.

Examines the effects of academic tracking in secondary schools on educational stratification and considers how that tracking may affect levels and dispersions of academic achievement and high school graduation rates among social groups. Shows that placement in the college track substantially benefits growth in mathematics achievement and the probability of high school graduation, even when measured and unmeasured sources of nonrandom assignment to tracks are taken into account. Finds that track assignment reinforces preexisting inequalities in backgrounds. Notes that track assignment and differential achievement in tracks partially compensate blacks and girls for their initial disadvantages and makes racial and sexual inequalities smaller than they may have otherwise been. Provides qualified support for the view that students are assigned to the tracks that provide the greatest reward to their measured background characteristics.

Kulik, C., & Kulik, J. (1982). Effects of ability grouping on secondary school students: A meta-analysis of evaluation findings. American Educational Research Journal, 19 (3), 415-428.

Presents a meta-analysis of 52 studies of ability grouping in secondary schools. Finds a small overall effect on academic achievement with studies of average and below-average students producing near-zero achievement and studies of high ability students usually reporting clear effects. Concludes that high-ability students placed in a special honors class apparently benefit from the stimulation provided by other high-aptitude students and special, enriched curricula. Maintains that findings are generally consistent with conclusions of narrative reviewers but do not support the view that grouping has unfavorable effects on the achievement of low-aptitude students.

Lee, V. E., & Bryk, A. S. (1988). Curriculum tracking as mediating the social distribution of high school achievement. Sociology of Education, 61(2), 78-94.

Investigates the social distribution of mathematics achievement in a random sample of students and high schools drawn from the base year and first followup of High School and Beyond. Focuses on the academic experiences of these students, particularly on the differences in curriculum tracking and the enrollment in academic courses in Catholic and public schools. Finds that students are more likely in Catholic than in public schools to be assigned to the academic track than to choose it and that placement in the academic track is more closely linked to aspirations for college graduation in Catholic schools. Concludes that not only do Catholic school students take more academic courses, but their course-enrollment patterns are less strongly dependent on their family background or prior achievement. Maintains that track placement and course of study are the major mediating factors that link students' background (social class, minority status, and academic background) with academic achievement.

Lee, V. E., & Bryk, A. S. (1989). A multilevel model of the social distribution of high school achievement. Sociology of Education, 62, 172-192.

Identifies some characteristics of secondary schools that encourage a high level of achievement and promote an equitable distribution of achievement across the diverse social class, racial/ethnic, and academic backgrounds of students. Employs hierarchical linear modeling techniques to investigate the effect of the normative environment and academic organization of high schools on four social distribution parameters related to mathematics achievement. Concludes that the academic organization of high schools has a significant impact on the social distribution of achievement within them. Finds that although a smaller gap between the achievement of minority and white students is associated with an orderly school climate, less differentiation by social class and academic background is associated with smaller school size, less variability in course taking in mathematics, and a fair and effective disciplinary climate.

Natriello, G., Pallas, A. M., & Alexander, K. (1989). On the right track? Curriculum and academic achievement. Sociology of Education, 62, 109-118.

Compares the impact on academic achievement of graduating from the academic, general, or vocational tracks or dropping out of high school, using data from the High School and Beyond Sophomore Cohort Base Year (1980) and First Follow-up (1982) surveys, both of which included a questionnaire and battery of achievement tests. Finds that 1) the performance of students in all three tracks, whether or not they graduated, increased from the first to the second tests, 2) students in the academic track had the highest scores in the 10th-grade test and

maintained them in the 12th-grade test, 3) students in the general track began with and maintained higher test scores than did students in the vocational track, 4) graduates from the lower "adjacent" tracks scored higher than did the dropouts from the higher tracks, and 5) students who eventually graduated started with an achievement advantage over those who dropped out.

Oakes, J. (1985). Keeping track: How schools structure inequality. New Haven, CT: Yale University Press. (ED 274 749)

Examines issues surrounding tracking, the system of grouping students for instruction on the basis of their ability. Provides evidence that tracking is done subjectively and leads to different and unequal educational experiences. Concludes, on the basis of data on student achievement and attitudes in 25 schools, that teenagers in low tracks, often poor and minority students, receive a noticeably inferior education regarding the amount of culturally valued knowledge transmitted, the conditions of their classrooms, and the quality of their school relationships with adults and classmates. Proposes tracking be replaced by heterogeneous grouping and offers guidelines for implementation.

Shavit, Y., & Featherman, D. L. (1988). Schooling, tracking, and teenage intelligence. Sociology of Education, 61(1), 42-51.

Analyzes longitudinal data for young Israeli men born in 1954 to determine the effects of schooling and tracking in Israeli high schools on changes in psychometric intelligence during adolescence. Examines respondents' standardized scores on scholastic aptitude tests, administered at age 13, and their scores on military screening tests of cognitive ability, administered at age 17. Finds that extended school enhances psychometric intelligence substantially during adolescence, more in the academic than in the vocational track, and the psychometric intelligence of teenage dropouts from any track was more constant than that of continuing students. Concludes that schooling provides for some redistribution of cognitive (verbal) ability during adolescence.

Slavin, R. E. (1988). Synthesis of research on grouping in elementary and secondary schools. Educational Leadership, 46(1), 67-77.

Summarizes what is known about the achievement effects of various forms of grouping at the elementary and secondary levels. Concludes that the achievement effects of ability-grouped class assignment compared to heterogeneous grouping are essentially zero, that regrouping for some subjects at the secondary level produces no positive effects, and that flexible cross-age groups yield positive results.

Slavin, R. E. (1990). Achievement effects of ability grouping in secondary schools: A best-evidence synthesis. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin-Madison.

Reviews research on the effects of ability grouping on the achievement of secondary students. Focuses on studies which compared between-class ability grouping to heterogeneous placements. Finds zero effects of grouping for all ability levels. Observes that this finding contradicts earlier results from studies comparing students in high, average, and low ability groups which suggested that ability grouping was beneficial to students in high groups and detrimental to those in low groups. Advances several explanations to account for this discrepancy. Suggests that perhaps teaching methods need to be systematically changed for school organization to have greater

impact on student achievement. Concludes that in the absence of any evidence of instructional effectiveness, secondary schools should reduce their use of between-class grouping.

Webb, N. M. (1982). **Student interaction and learning in small groups.** Review of Educational Research, 52(3), 421-445.

Reviews research on learning in cooperative small groups and focuses on the role of the student's experience in small group interaction in learning. Explores aspects of small group learning in the literature, including the relationship between interaction and achievement as well as cognitive process and social-emotional mechanisms that link interaction and achievement. Concludes that an individual's role in group interaction influences learning and that interaction is best predicted from multiple characteristics of individual, group, and setting.

2. TUTORING:

Hedin, D. (1987). **Students as teachers: A tool for improving school climate and productivity.** Social Policy, 17(3), 42-47.

Reviews evidence for the value of tutoring and the effectiveness of children and adolescents as tutors to their peers. Finds that tutoring reduces student passivity toward learning and reduces the isolation of subgroups in schools. Attempts to explain why tutoring is not used and suggests ways to increase use. Encourages tutoring as a means of developing academic skills and strengthening the tutor's personal development.

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